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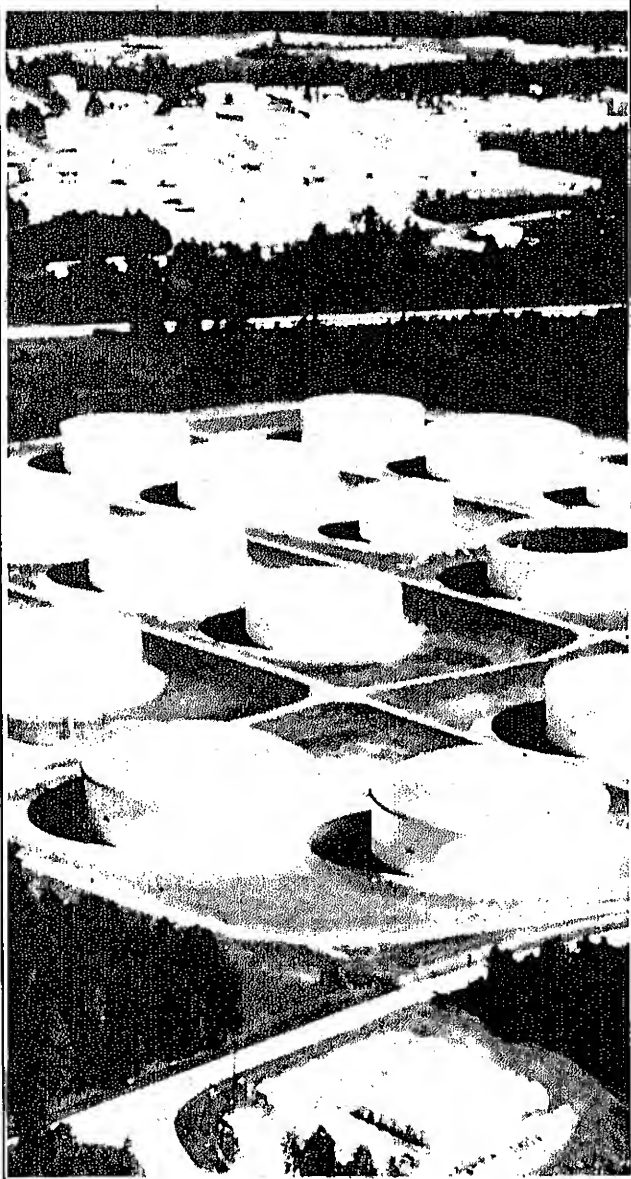
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Contents

This Month in the PSM

This issue of the *Petroleum Supply Monthly* features "Recent Trends in Primary Petroleum Storage Capacity" beginning on page xiii. This article summarizes available information on storage capacity at select points along the production and primary distribution chain. The article assesses recent changes in storage capacity and discusses some of the reasons for these changes. Also in this issue, "U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves" (pages xix-xx) presents an advance summary of information from the Energy Information Administration's *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1983 Annual Report*, which is scheduled for release early next month.



Petroleum Focus

Petroleum Supply Summary	xi
Recent Trends in Primary Petroleum Storage Capacity	xiii
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves	xix

Summary Statistics—through September 1984

Crude Oil and Petroleum Products Overview. .	2
Crude Oil Supply and Disposition.	6
Crude Oil and Petroleum Products Imports. . .	8
Finished Motor Gasoline Supply and Disposition.	11
Distillate Fuel Oil Supply and Disposition.	13
Residual Fuel Oil Supply and Disposition.	15
Liquefied Petroleum Gases Supply and Disposition.	17
Other Petroleum Products Supply and Disposition.	18
Sources	19

Detailed Statistics—August 1984

National Statistics

1. U.S. Petroleum Balance.	23
2. Supply and Disposition of Crude Oil and Petroleum Products	24
3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products.	25
4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products.	26
5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products	27

Supply and Disposition of Crude Oil and Petroleum Products by PAD Districts

6. PAD District I.	28
7. PAD District II.	29
8. PAD District III.	30
9. PAD District IV.	31
10. PAD District V.	32

Production of Crude Oil and Lease Condensate

11. Production by PAD District and State, June 1984	33
---	----

Natural Gas Processing

12. Plant Production of Petroleum Products by PAD Districts	34
---	----

Refinery Operations by PAD District

13. Refinery Input of Crude Oil and Petroleum Products.	35
14. Refinery Production of Petroleum Products	36
15. Percent Refinery Yield of Petroleum Products	37

Contents (Continued)

	Page		Page
Imports and Exports of Crude Oil and Petroleum Products		Explanatory Notes	
16. Imports by PAD District	38	1. Data Collection Methodology	81
17. Year-to-Date Imports by PAD District	39	1.1 Weekly Petroleum Supply Reporting System (WPSRS)	81
18. Imports by Source and PAD District	40	1.2 Monthly Petroleum Supply Reporting System (MPSRS)	82
19. Year-to-Date Imports by Source and PAD District	44	1.3 Census Import (IM-145) and Export (EM-522 and EM-594) Data	84
20. Exports by PAD District	49	2. Supply	85
21. Year-to-Date Exports by PAD District	50	3. Domestic Crude Oil Production	85
22. Exports by Destination	51	4. Disposition	86
23. Year-to-Date Exports by Destination	53	5. Stocks	86
Stocks		6. Average Stock Levels	86
24. Stocks of Crude Oil and Petroleum Products by PAD District	55	7. Movements	87
25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State	60	8. Preliminary Monthly Statistics	87
Transportation of Crude Oil and Petroleum Products Between PAD Districts		9. Notes on Tables	87
26. Movements by Pipeline, Tanker, and Barge	61	10. New Stock Basis	89
27. Movements by Pipeline	61	11. Stocks of Alaskan Crude Oil	90
28. Movements by Tanker and Barge	62	12. Changes in Petroleum Industry Reporting	90
29. Net Movements by Pipeline, Tanker, and Barge	63	13. NGL Import/Export Algorithm	93
Heavy Fuel Oils by Sulfur Content		Figures	
30. Production of Residual Fuel Oil	64	Petroleum Overview	4
31. Stocks of Residual Fuel Oil	64	Petroleum Products Supplied	4
32. Movements by Tanker and Barge	64	Crude Oil Supply and Disposition	5
33. Imports of Residual Fuel Oil by Country of Origin	65	Crude Oil Ending Stocks	5
34. Imports of Residual Fuel Oil by State of Entry	66	Motor Gasoline Supply and Disposition	10
Glossary		Motor Gasoline Ending Stocks	10
Definitions of Petroleum Products and Others Terms	69	Distillate Fuel Oil Supply and Disposition	12
Bureau of Mines Petroleum Refining Districts and PAD Districts	75	Distillate Fuel Oil Ending Stocks	12
Maps		Residual Fuel Oil Supply and Disposition	14
PAD Districts	76	Residual Fuel Oil Ending Stocks	14
Bureau of Mines Refinery Districts	76	Liquefied Petroleum Gases Supply and Disposition	16
District Map, Oil and Gas Division, Railroad Commission of Texas	77	Liquefied Petroleum Gases Ending Stocks	16
		Photo Credit	
		Colonial Pipeline, Co., page v (Courtesy of American Petroleum Institute Photo Library).	

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues of the *PSM*.

U.S. Petroleum Developments: 1981.....	Mar 1982
Timeliness and Accuracy of Selected Monthly Petroleum Supply Data	Apr 1982
Focus on Motor Gasoline Statistics	Apr 1982
Focus on Crude Oil Production Data	Apr 1982
Motor Gasoline Outlook: Summer 1982	May 1982
Gasoline Use in the United States	May 1982
The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand	May 1982
1982 EIA Petroleum Refinery Survey Results	Jun 1982
What Is a Refinery?	Jun 1982
Mid-year Petroleum Supply Review	Jul 1982
Petroleum Imports and Exports	Aug 1982
Refinery Shutdowns During 1982	Sep 1982
Distillate Fuel Oil Outlook: Winter 1982-83	Sep 1982
Recent Trends in Fuel Oil	Sep 1982
Futures Trading on Heating Oil Markets	Sep 1982
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report	Oct 1982
Trends in Domestic Crude Oil Production and Reserves	Nov 1982
Major Energy Companies' Investment and Resource Development Patterns, 1974-80	Nov 1982
U.S. Petroleum Developments: 1982	Jan 1983
Trends in Petroleum Products Consumption, 1971-1982	Jan 1983
Refinery Shutdowns During 1982	Feb 1983
U.S. Petroleum Imports and Exports	Feb 1983
Petroleum Supply Reporting System Overview	Mar 1983
Summer Gasoline Overview	May 1983
Principal Factors Influencing Motor Gasoline Demand	May 1983
U.S. Petroleum Refinery Trends and Outlook	Jun 1983
Mid-Year Petroleum Review	Jul 1983
Timeliness and Accuracy of Selected Petroleum Supply Data Series	Aug 1983
Distillate Fuel Oil Overview: Winter 1983-84	Sep 1983
Fuel Oil Trends	Sep 1983
U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves	Sep 1983
LPG Market Trends	Nov 1983
National Petroleum Council Revises Minimum Operating Inventory Estimates	Dec(1) 1983
U.S. Petroleum Developments: 1983	Dec(2) 1983
An Overview of Petroleum Transportation	Dec(3) 1983
EIA Revises Petroleum Supply Reporting System	Jan 1984
Trends in Petroleum Product Consumption	Jan 1984
Petroleum Consumption in the Industrial Sector	Jan 1984
Motor Gasoline Outlook for Summer 1984	Feb 1984
Recent Motor Gasoline Trends	Feb 1984
New Patterns Emerging in U.S. Petroleum Imports and Exports	Feb 1984
Refinery Capacity Trends and Outlook	Apr 1984
Mid-Year Petroleum Review	Jun 1984
Timeliness and Accuracy of Selected Petroleum Supply Data Series	Jun 1984
Winter 1984-1985 Distillate Fuel Oil Outlook	Jul 1984
Distillate Fuel Oil Overview	Jul 1984

Petroleum Focus



Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	September			Cumulative January Through September		
	1984	1983	% Change	1984	1983	% Change
Products Supplied						
Motor Gasoline	6.8	6.7	1.7	6.7	6.6	1.8
Distillate Fuel Oil	2.7	2.6	6.7	2.9	2.6	10.1
Residual Fuel Oil	1.3	1.4	- 7.0	1.4	1.4	- 0.1
Other Products	5.0	4.9	3.9	4.8	4.4	8.7
Total	15.9	15.5	2.4	15.8	15.1	5.1
Crude Inputs to Refineries	12.5	12.5	- 0.1	12.1	11.7	3.6
Production						
Crude Oil, Natural Gas Liquids, and Other ¹	10.5	10.4	0.1	10.4	10.3	1.0
Imports						
Crude Oil ²	3.1	3.9	- 20.4	3.2	3.1	3.0
SPR	0.1	0.3	- 79.0	0.2	0.2	- 22.5
Products	1.8	1.9	- 6.8	2.0	1.7	18.0
Total	5.0	6.1	- 19.1	5.4	5.0	6.7
Exports						
Crude Oil	0.2	0.2	7.3	0.2	0.2	7.5
Products	0.5	0.5	6.9	0.5	0.6	- 14.9
Total	0.7	0.7	7.0	0.7	0.8	- 10.1
Stock Withdrawal						
Crude Oil ²	0.4	0.1	—	0.1	(s)	—
Products	- 0.2	- 0.6	—	(s)	0.1	—
Stocks at End of Period (Million Barrels)						
Crude Oil						
SPR	432	361	19.5			
Other	331	347	- 4.6			
Total	762	708	7.7			
Products						
Motor Gasoline ³	229	229	(s)			
Distillate Fuel Oil	142	154	- 7.5			
Residual Fuel Oil	44	50	- 10.5			
Other	330	345	- 4.4			
Total	746	778	- 4.1			
Total Crude Oil and Products	1,508	1,485	1.5			

1 Includes alcohol and other hydrocarbon liquids.

2 Excludes Strategic Petroleum Reserve (SPR).

3 Including blending components.

(s) = Less than 0.05 million barrels per day or less than 0.05 percent.

NOTE: Percent changes are based on unrounded values. September 1984 data are estimates based on weekly data, except for exports, NGL production, other hydrocarbons, and alcohol which are August 1984 monthly values. Totals may not be equal to sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, August 1984.

Recent Trends in Primary Petroleum Storage Capacity

A common perception of inventory is of product being stored pending sale or final consumption. The Energy Information Administration (EIA), however, reports petroleum inventory levels that count crude oil, refinery feedstocks and blendstocks, and finished product at select points along the entire production and primary distribution chain. This article summarizes available information on storage capacity at these points based on a recent EIA evaluation of primary petroleum distribution system capabilities for holding and moving product. That review included data from the Bureau of the Census and the National Petroleum Council.

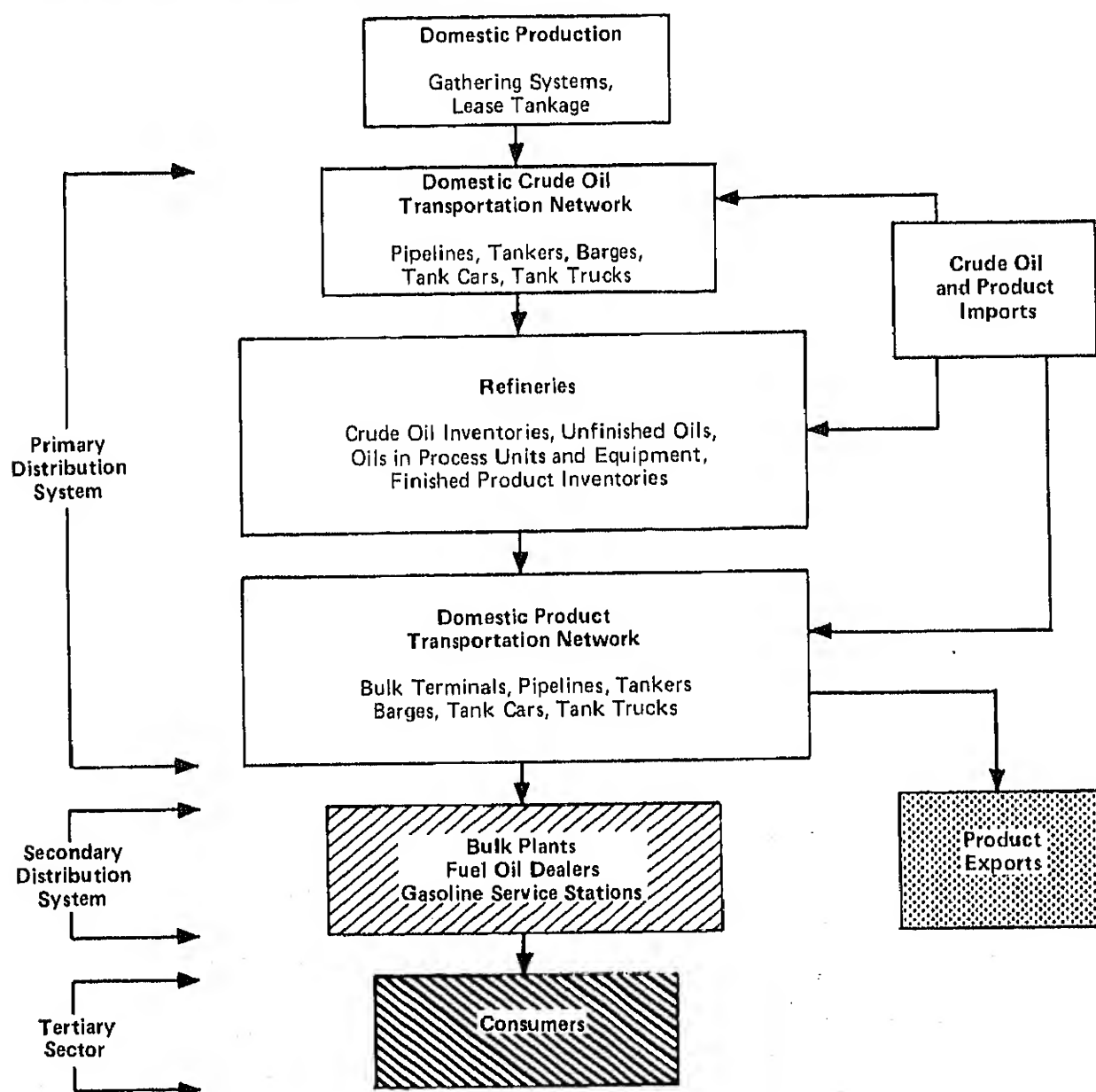
Total private capacity to store crude oil increased between 1977 and 1983, while that for products declined. Changes in the location and form of petroleum storage

reflect an effort by the industry to increase marketing flexibility. For example, most of the increased capacity to store crude oil was at refineries. Similarly, product storage capacity at refineries also increased, offset by significant declines at bulk terminals—that is, at locations closer to the point of consumption.

The Petroleum Distribution System

Storage is integral to the operation of the petroleum distribution system. This system begins with the production and storage of crude oil in the field and ends with the storage and consumption of products by end users (see Figure 1). Throughout the system, scheduling is one of the most important reasons for having

Figure 1. The Petroleum Distribution System



storage, whether to smooth out crude oil shipments, maintain refinery processing levels, transport product to distributors and end users, or support steady end-use consumption levels.

Primary distribution in the domestic petroleum industry includes activities related to the production, transportation, and refining of crude oil; the blending of products; and the transportation of finished products to large distribution centers by pipeline, ship, or barge.

The secondary distribution system moves products from delivery terminals in the primary distribution system to retail outlets or directly to end-use consumers. Secondary storage in this system represents a buffer between the primary supply and the changing demands of consumers. Secondary storage facilities include storage at bulk plants,¹ fuel oil dealerships, and gasoline/diesel retail outlets.

Tertiary storage consists of products held by consumers. For example, households and businesses that heat with distillate fuel oil will have their own on-site storage tanks. Generally, products held in tertiary storage cannot be redirected to other end users as market conditions dictate. While tertiary inventory levels at electric utilities are reported to the EIA, they are generally not readily available for other energy consuming sectors of the economy.

Changes in secondary or tertiary storage capacity affect storage requirements of the primary distribution system. Efforts to build secondary stocks, for example, will be reflected immediately in the drawdown of primary stocks. The extent of the secondary distribution network and the level of storage capacity maintained by consumers of a particular fuel indicate the potential for increased claims on primary inventories of that fuel. A recent study by the National Petroleum Council (NPC, 1984) indicates that total secondary storage capacity and inventories for refined products in this country at the end of March 1983 were 153 million barrels and 48 million barrels, respectively. The same study reported tertiary storage capacity and inventory estimates of 642 million barrels and 269 million barrels, respectively. NPC estimates of primary storage capacity are discussed on pages xvi and xvii.

Primary Petroleum Distribution

Virtually all crude oil storage resides within the primary distribution system. Significant holdings of crude oil are found on the lease (where the oil is produced), within the crude oil transportation system, and at refineries. Primary storage capacity for refined products is maintained at refineries, in pipeline networks, and at bulk terminals.

Domestic Crude Oil Production

The primary distribution system begins with the production of crude oil in the field and its delivery to refineries. Because crude oil is produced in the field on a continuous basis, but is often transported in batches, storage is needed to accommodate the efficient scheduling of crude oil movements.

To accommodate differences between the rate at which crude oil is produced and the rate at which it can be removed, "lease" storage is maintained in the form of tanks on or near the production lease site. This lease storage also supports the basic measurement, assaying, purification, and gas separation operations that are part of the crude oil production process.

From onshore lease tanks, crude oil is usually transported in segregated batches by small pipeline gathering systems, tank trucks, or tank cars to a trunk pipeline tank farm (a site with several storage tanks).

Crude oil is also accumulated and stored at offshore production facilities. Oil from offshore producing wells is commonly brought by sub-sea gathering lines to a central production platform before shipment through larger trunk pipelines to coastal storage facilities. Additional offshore storage is needed if the oil is to be transported ashore by ship, but, to date, pipelines are the predominant transportation mode for offshore production in this country.

Petroleum Imports

Crude oil and finished product also enter the primary distribution system as imports from foreign countries. For 1983, non-Strategic Petroleum Reserve imports of crude oil averaged 26.5 percent of total refinery crude oil inputs. Imports enter primarily at marine terminals, which may be connected directly to a refinery or connected to a pipeline for distribution farther inland. Storage is needed at marine terminals to accommodate the unloading of large batches from tankers. Additional offshore storage to support transshipment activities (the transfer of oil to smaller tankers from larger ones that cannot be docked in port) may be required. Some imports enter the system overland by trunk pipeline and by truck, mainly from Canada, which supplied about 8 percent of the Nation's total crude oil imports in 1983. Marine terminal storage associated with petroleum product imports is counted with bulk terminals, discussed below (see page xv).

Strategic Petroleum Reserve

A third potential source of crude oil for the Nation's refineries is the U.S. Strategic Petroleum Reserve (SPR). The SPR began storing crude oil in 1977, and by the end of 1983 its 379 million barrels accounted for well over half of the total domestic holdings of crude oil. By the end of June 1984, SPR stocks were at 414 million barrels—enough to offset current non-SPR crude oil import levels for almost 4 months. Most of the SPR crude oil is stored in salt domes at five sites along the Texas and Louisiana Gulf Coasts. There is further storage at a marine terminal on the Mississippi River, and construction is proceeding at existing sites and at one new site in Texas. The total fill presently planned for the reserve is 750 million barrels.

¹Bulk plants, or stations, are distinguished from bulk terminals in EIA and Census Bureau reporting as storage facilities that have a total storage capacity of less than 50,000 barrels and do not receive petroleum products by barge, ship, or pipeline.

Crude Oil Transportation

The principal mode for moving domestic oil production to refineries is the pipeline. However, during 1983, about 31 percent of the total crude oil received at the Nation's refineries was transported to the refineries via barge or tanker. Water transportation, is also significant for finished product.

Main trunk pipelines carry crude oil to distribution hubs for further shipment or to refining centers directly. Tank farm storage is maintained along the pipeline and at the pipeline connection points to facilitate continuous operation of the pipeline in transporting crude oil in segregated batches between the producing and refining regions. Storage is also used as a temporary outlet for the oil during cleaning or other pipeline maintenance operations. Crude oil may be transported from major terminuses to refineries by smaller pipelines or, less frequently, by other transportation modes.

Petroleum Refining

The next point in the primary distribution system where storage is needed is at refineries. Storage supports the efficient operation of refineries as well as the efficient operation of crude oil and refined product transportation systems.

Whether a refinery is in a continuous operation mode or shut down for maintenance, it still receives crude oil on a batch basis. Refineries need to maintain storage capacity so that the crude oil transportation system can operate efficiently. On the input side, they require enough capacity to receive large shipments of crude oil—in a single day a tanker may offload up to a 10-day supply of oil to a refinery.

Refineries also require crude oil, unfinished oil, and finished product tankage to ensure efficient scheduling of refinery operations. It is necessary to have adequate volumes of crude oil on hand to sustain refining operations in the event of delivery lags or more serious supply disruptions. Similarly, refineries maintain finished product stocks as a buffer to support product sales during scheduled maintenance shutdowns or in the event of unanticipated supply disruptions or production delays. In addition, the operation of processing units requires a certain amount of crude oil and unfinished product fill. Although not normally considered as storage capacity, this product fill is counted as inventory, and refineries may, in effect, hold more or less product in process by utilizing varying degrees of their throughput capacity.

Finally, refineries need storage so that they can accumulate finished output until either minimum shipment volumes are amassed or sufficient product demand materializes. In particular, the ability to store products in the offseason (e.g., gasoline storage in the winter and spring, distillate in the summer and fall) helps refineries maintain a steadier level of operation year round, thereby lowering operating costs.

Product Transportation

Refined product is distributed from refinery centers by pipeline, tanker, barge, rail, and truck. About 1.2 billion barrels of product were transported between Petroleum Administration for Defense (PAD) districts by pipeline in 1983, representing 22 percent of the total product supplied in that year. (This excludes interim shipments to other than ultimate users.) At the same time, another 600 million barrels were transported between PAD districts by tanker and barge, accounting for 11 percent of product supplied. (Most domestic product is consumed in the region where it is produced and, thus, is not counted in these estimates.)

Pipelines operate most efficiently when they are full and the product is moving. To maintain a continuous flow (i.e., to avoid holding up movement while waiting on a batch delivery), storage is needed at the beginning, along the way at transfer points, and at the end of the pipeline system. Tank farms exist so that product in transit may be sidetracked for sorting, measuring, re-routing, or simply for holding temporarily during repairs to the line or pump station. Wherever pipeline sizes change, "break out" tankage is usually needed.

Product pipelines operate by moving product in segregated batches. Between each batch is an "interface," and the mixture of batch types on either side of the interface is called "transmix." Percentage loss of clean product due to transmix is minimized by handling large batches. In practice, the minimum batch size is around 25,000 barrels (Office of Competition, 1980). Thus, a refinery planning to ship product must maintain tankage for the given product so it can accumulate a sufficiently large batch. (The ability to move product as part of a common stream operation—where several companies' shipments of the same or similar quality product are mixed together in one batch—can lower the minimum shipment volume required for each firm.)

Bulk Terminals

Whether products are transported from the refinery to their destination by pipeline, tanker, or barge, they are usually delivered to some central distribution point, or bulk terminal.² Bulk terminals act as warehouses for the petroleum industry, supplying the secondary distribution system and also some large utility and industrial consumers directly.

Bulk terminals hold stocks for all the reasons a company would hold inventory of any product. Most important are the transaction uses of stocks—to accommodate short-term or seasonal fluctuations in consumer demand while maintaining a steady production level. In the petroleum industry, the big peaks in product demand are for distillate fuel in the winter and motor gasoline in the summer. During off-season periods, bulk terminals accumulate stocks to be used in peak

²A bulk terminal is defined in EIA reporting systems as a non-consumer facility used for storage and/or marketing of petroleum products that has total storage capacity of 50,000 barrels or more, or receives petroleum products by barge, tanker, or pipeline.

season. Additional storage supports the operating requirements of the terminal—product is tied up in tank bottoms and is used to maintain pipeline fill.

Crude Oil Storage Trends

Recent changes in storage capacity associated with various locations within the primary distribution system are summarized in Table 1. In addition, capacity estimates based on Federal data sources for end-of-year 1977 and 1983 are compared with National Petroleum Council estimates for September 1978 and March 1983. In 1977—the most recent year for which comprehensive Federal data on crude oil and refined product storage capacity are available—domestic capacity to store crude oil was estimated to be nearly 474 million barrels. This estimate represents an aggregation of data from several sources, identified in the footnotes to Table 1.

Based on EIA and Census data, total end-of-1983 crude oil storage capacity is estimated to have grown to 508 million barrels. National capacity to store crude oil has been further augmented by the development of the Strategic Petroleum Reserve, which contained only 7.5 million barrels of crude oil at the end of 1977 and now stands at over 400 million barrels.

In comparison, the National Petroleum Council estimates of total capacity to store crude oil were higher than the estimates based on public sources in both years, by 80 to 90 million barrels.³ The NPC estimates, however, reflect the same growth in storage capacity between 1978 and 1983. For consistency with the estimates from the public sources, NPC data shown on Table 1 reflect the summation of NPC estimates of shell capacity—including tank tops and safety allowances—

and unavailable storage outside tankage (e.g., pipeline fill). Not counted in the EIA/Census numbers, the NPC estimates include capacity at crude oil bulk terminals.

While the level of crude oil inventories changed little between 1977 and 1983, capacity estimates based on public sources indicate that storage capacity utilization (inventories as a percent of capacity) decreased over this period, from 72 percent to 68 percent. Only storage capacity in pipelines⁴ and tank farms declined over these years, as movements of crude oil to the Nation's inland refineries fell off after crude oil decontrol in early 1981. At that time the operations of many smaller, independent refiners in the central United States had been adversely affected by the end of petroleum allocations and the loss of benefits from the Small Refiner Bias of the Entitlements Program. Also, the 1981-1983 economic recession fell especially hard on the manufacturing

³The basis for the large discrepancy between the EIA/Census and NPC estimates of capacity is not entirely clear. The NPC estimates reflect small additional volumes of crude oil and product in process at refineries and in transit (other than North Alaskan oil shipments and pipeline fill) as well as idle storage capacity. Also, the NPC crude oil capacity estimates include oil stored in bulk terminals, and Census estimates do not. A rigorous comparison of EIA/Census and NPC estimates by company or location of storage would be required to identify further reasons for the observed differences. However, the possibility of some double counting by joint owners of storage capacity in the NPC sample cannot be totally discounted. There is also a possibility that Census may have underestimated storage capacity because of the manner in which respondents select themselves into Standard Industrial Classification (SIC) categories.

⁴Total storage capacity in pipelines may be approximated as the sum of pipeline fill, or what is in the pipeline at a given time, plus the capacity of tank farms along the system.

Table 1. Crude Oil Storage Capacity and Inventories, 1977/1978 and 1983 (Excluding SPR)
(Million Barrels)

	1977/1978	1983
NPC Estimate of Total System Capacity (Excl. SPR) ^a		
Census/EIA Capacity Data (Excl. SPR)	553.9	601.5
Lease Site		
Pipelines & Tank Farms ^d	67.2 ^b	75.1 ^c
Alaskan Oil in Transit	219.9	193.7
Refineries ^e	^e	25.0
Total Private Capacity	186.6	214.2
Total Private Stocks (Excl. SPR) ^g	473.7	508.0
	340.2	343.8

^aNational Petroleum Council, *Petroleum Storage and Transportation Capacities, 1979* (estimate of capacity as of 9/30/78), *Petroleum Inventories and Storage Capacity, 1984* (estimate of capacity as of 3/31/83).

^bBureau of the Census, "Oil and Gas Field Operations," 1977 *Census of Mineral Industries*, December 1980.

^cEstimate from 1983 crude oil and lease condensate production as reported by EIA (see footnote 'g'), based on 1977 Census capacity/production ratio.

^dTotal stocks at pipelines and tank farms at end of year (including pipeline fill). 1977 *Petroleum Statement, Annual*, Energy Data Report, DOE/EIA-0108/77 and *Petroleum Supply Annual*, 1983, DOE/EIA-0340(83)/1.

^eA small volume of Alaskan oil in transit is included in "Refineries" for 1977.

^fCapacity at refineries as of first-of-year, 1978 and 1984, *Petroleum Refineries in the United States and Puerto Rico, 1978*, Energy Data Report, and *Petroleum Supply Annual*, 1983 DOE/EIA-0340(83)-1.

^gInventories at end of year. *Petroleum Refineries in the United States and Puerto Rico, 1978*, Energy Data Report, and *Petroleum Supply Annual*, 1983, DOE/EIA-0340(83)/1.

Note: Capacity reported here for refineries refers to shell capacity. NPC estimates reflect shell capacity of tankage (including tank tops and idle capacity) plus unavailable inventory outside tankage (e.g. pipeline fill).

**Table 2. Primary Storage Capacity and Inventories for Major Petroleum Products, 1977/1978 and 1983
(Million Barrels)**

	Motor Gasoline	Jet Fuel	Middle Distillates	Residual Fuel Oil	Total
1977/1978					
NPC Estimate of Total System Capacity ^a	496.8	91.2	351.5	156.3	1,095.9
Census/EIA Capacity Data					
Refineries ^b	174.6	31.0	118.6	71.4	395.6
Pipelines & Tank Farms ^c	52.7	8.1	33.2	—	94.0
Petroleum Bulk Terminals ^d	163.2	19.0	162.7	80.0	424.9
Total Capacity	390.5	58.1	314.5	151.4	914.5
Total Primary Inventories ^e	257.6	34.5	250.3	90.0	632.4
1983					
NPC Estimate of Total System Capacity ^a	470.6	75.2	313.8	147.2	1,006.8
Census/EIA Capacity Data					
Refineries ^b	197.6	36.6	113.2	62.0	409.4
Pipelines & Tank Farms ^c	51.1	11.5	27.5	—	90.1
Petroleum Bulk Terminals ^d	144.1	21.1	83.4	46.1	294.7
Total Capacity	392.8	69.2	224.1	108.1	794.2
Total Primary Inventories ^e	222.4	38.6	140.3	48.5	449.8

^aNational Petroleum Council. *Petroleum Storage and Transportation Capacities, 1979* (estimate of capacity as of 3/31/78). *Petroleum Inventories and Storage Capacity, 1984* (estimate of capacity as of 3/31/83). The 1978 NPC jet fuel estimate includes kerosene and kerosene-type jet fuel; the 1983 estimate represents kerosene-type jet fuel only. The 1978 motor gasoline estimate includes aviation gasoline; the 1983 estimate includes motor gasoline only. Total may not equal sum of components due to independent rounding.

^bCapacity at refineries as of first-of-year, 1978 and 1984. *Petroleum Refineries in the United States and Puerto Rico, 1978*, Energy Data Report, and *Petroleum Supply Annual, 1983*, DOE/EIA-0340(83)/1.

^cTotal stocks at pipelines and tank farms at end of year (including pipeline fill). *1977 Petroleum Statement, Annual*, Energy Data Report, DOE/EIA-0108/77, and *Petroleum Supply Annual, 1983*, DOE/EIA-0340(83)/1.

^dBureau of the Census, "Petroleum Bulk Stations and Terminals," *1977 Census of Wholesale Trade*, March 1981. The 1983 estimates are derived from 1983 petroleum product inventories as reported by EIA (see footnote 'e'), based on ratio of 1977 Census capacity to end-of-1977 EIA inventories.

^eInventories at end of year. *Petroleum Refineries in the United States and Puerto Rico, 1978*, Energy Data Report, and *Petroleum Supply Annual, 1983*, DOE/EIA-0340(83)/1.

Note: Capacity reported here for both refineries and bulk terminals refers to shell capacity. NPC estimates represent shell capacity (including tank tops and idle capacity) plus unavailable inventory outside tankage (e.g. pipeline fill).

Industries of the Midwest, weakening the demand for refinery output in that region, and many workers (and energy consumers) moved to the Sun Belt States. A recent indication of the reduced profitability of moving oil to the Midwest is provided by the scheduled conversion of the Seaway and Texoma crude oil pipelines (together accounting for 560,000 barrels per day of throughput capacity) to natural gas (PIW, 1984).

Increased crude oil storage capacity at refineries between 1977 and 1983 more than offset the decline at pipelines. Some of this 1983 capacity was associated with idle refineries, which may eventually be shut down, but the data clearly indicate an increased emphasis on storage at refineries. Inventories of crude oil had increased in response to the 1979 and 1980 world oil price increases and associated uncertainty in international markets, and the 1983 capacity still reflects this structural change in industry inventory management.

Refined Product Storage Trends

Total primary storage capacity for major refined products maintained at refineries, in pipeline networks, and

at bulk terminals has declined since 1977 (see Table 2). A comparison of storage estimates derived from Federal data sources for end-of-year 1977 and 1983 with National Petroleum Council estimates for March 1978 and 1983 shows an overall capacity decline of between 120 million barrels (based on estimates from public sources) and 90 million barrels (based on NPC estimates).⁵

Most of the decline was associated with middle distillates and residual fuel oil. Trends in both storage capacity and inventories for these products, as well as for motor gasoline and jet fuel, closely paralleled trends in product supplied over the same period, indicating demand for storage to support transactions has been the most important factor explaining observed capacity levels. This was especially true for residual fuel oil, but lower capacity requirements for middle distillates probably also reflect changes in inventory management that have been responsible for the relatively small seasonal buildups of heating oil inventories in recent years.

⁵See Footnote 3.

Changes in total product storage capacity can also be associated with changes in capacity at various points in the distribution system. For example, most of the decline in total product capacity was at bulk terminals, while capacity at refineries increased slightly. This shift of capacity towards refinery locations is consistent with industry efforts in recent years to pare costs and enhance their flexibility in responding to changing market conditions. Increased crude oil storage capacity relative to that for refined products is another part of this move to increase marketing flexibility.

Finally, the data in Table 2 provide some indication of how the secondary distribution system and tertiary

storage capabilities influence primary storage practices. In both 1977 and 1983 the ratio of inventories to primary storage capacity is higher for gasoline and middle distillates than it is for the other two products. Contributing to this higher relative primary storage requirement is the fact that gasoline and distillates are distributed through extensive secondary networks to geographically dispersed consumers in the residential and transportation sectors. More product must be held in the primary system to support this network. Further, the tertiary storage capabilities of these consumers are typically restricted, especially in comparison with those of jet fuel and residual fuel oil consumers.

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U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves

In its seventh annual report on U.S. crude oil, natural gas, and natural gas liquids reserves, the Energy Information Administration estimated U.S. proved reserves¹ to be 27.7 billion barrels of crude oil, 200 trillion cubic feet of dry natural gas (excluding gas in underground storage) and 7.9 billion barrels of natural gas liquids (including lease condensate) as of December 31, 1983, (see Table 1).

The estimate of U.S. oil and gas proved reserves remained stable in 1983, as a significant increase in the estimate of proved reserves of natural gas liquids offset slight declines in crude oil and dry natural gas. According to the advance summary released in September 1984 of the Energy Information Administration's *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1983 Annual Report*, a 1.6 percent increase in total U.S. liquid hydrocarbon estimates of proved reserves (crude oil plus natural gas liquids) was attributed

to an increase of over 9 percent in the estimate of natural gas liquids proved reserves that outweighed a decline of less than 1 percent in the estimate of crude oil proved reserves. Both the relative stability of the estimate of crude oil reserves and the increase in the estimate of natural gas liquids reserves were largely the result of increases in net reserve adjustments and revisions.

Continuing the decline trend that began in 1971, the estimate of proved crude oil reserves slipped 123 million barrels (0.4 percent) last year—the smallest drop since 1980. Large positive net revisions (1.5 billion barrels) and net adjustments (462 million barrels) accounted for the stable estimate of crude oil proved

¹Proved reserves are those which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions.

Table 1. Estimated Total U.S. Proved Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas

	Proved Reserves at Start of Year	Net Revisions and Adjustments ^a	Total Discoveries ^b	Production ^c	Proved Reserves at End of Year ^d	Percent Change
Crude Oil (Million Barrels)						
1979	31,355	774	636	2,955	29,810	- 4.9
1980	29,810	2,108	862	2,975	29,805	(s)
1981	29,805	1,409	1,161	2,949	29,426	- 1.3
1982	29,426	351	1,031	2,950	27,858	- 5.3
1983	27,858	1,973	924	3,020	27,735	- 0.4
Natural Gas Liquids (Million Barrels)^e						
1979	6,772	15	555	727	6,615	- 2.3
1980	6,615	257	587	731	6,728	+ 1.7
1981	6,728	317	764	741	7,068	+ 5.1
1982	7,068	278	596	721	7,221	+ 2.2
1983	7,221	915	490	725	7,901	+ 9.4
Natural Gas (Billion Cubic Feet)^f						
1979	208,033	- 2,483	14,704	19,257	200,997	- 3.4
1980	200,997	2,250	14,473	18,699	199,021	- 1.0
1981	199,021	4,226	17,220	18,737	201,730	+ 1.4
1982	201,730	2,833	14,455	17,506	201,512	- 0.1
1983	201,512	3,075	11,448	15,788	200,247	- 0.6

^aAlgebraic sum of revision increases, revision decreases, and net of corrections and adjustments.

^bAlgebraic sum of extensions to old reservoirs, new field discoveries, and new reservoirs discovered in old fields.

^cThese estimates of U.S. production for crude oil, natural gas, and natural gas liquids are based on data reported to EIA on Form EIA-23, "Annual Survey of Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." These figures differ from official EIA U.S. production data for crude oil, natural gas, and natural gas liquids published in the *Petroleum Supply Annual* and *Natural Gas Annual*.

^dProved reserves at end of year equal proved reserves at start of year, plus net revisions (including corrections and adjustments), plus total discoveries, minus production.

^eIncluding lease condensate.

^fDry natural gas excluding gas in underground storage.

(s) = Less than 0.05 percent.

Source: Energy Information Administration, *Advance Summary of the U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1983 Annual Report*, September, 1984.

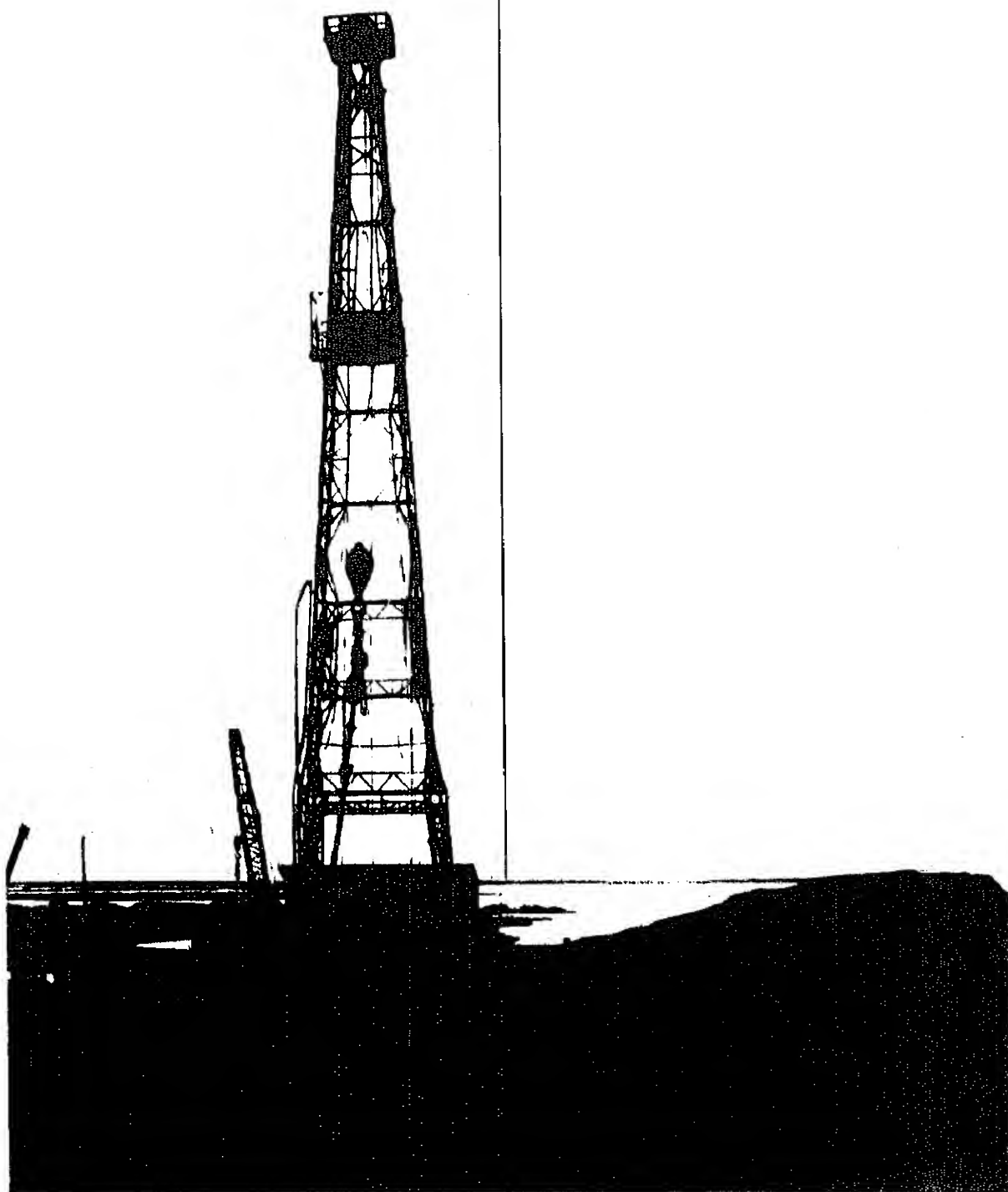
reserves, as total discoveries declined to 924 million barrels. Extensions to old reservoirs accounted for more than two-thirds of the discoveries. New reservoir discoveries in old fields accounted for one-fifth and new field discoveries accounted for the remainder.

The estimate of dry natural gas proved reserves fell 1.3 trillion cubic feet (0.6 percent) in 1983, but remained 0.6 percent above the low reported for 1980. Net revisions and adjustments to estimations of proved reserves continued to be positive; however, production, new discoveries and extensions to old reservoirs declined. About three-fifths of the 11 trillion cubic feet discovered in 1983 were from extensions to old reservoirs. New reservoir and new field discoveries accounted for about one-fourth and one-seventh, respectively.

The estimate of proved reserves of natural gas liquids increased 680 million barrels (9.4 percent) to 7.9 billion

barrels in 1983. This was the fourth consecutive annual increase in the estimate of proved reserves and resulted primarily from a positive net increase in revisions (66 million barrels) and a large increase in net adjustments (849 million barrels) that compensated for a drop in total discoveries (106 million barrels) during the year.

The estimates of proved reserves are based upon an analysis of data filed by 3,054 operators of oil and gas wells and by operators of 1,011 natural gas processing plants. The crude oil and natural gas proved reserves estimates are associated with sampling errors of 1 percent at a 95-percent confidence level. The full report includes additional data regarding estimates of proved reserves from nonproducing reservoirs and commitment status of proved natural gas reserves collected from large and intermediate size operators. It will be released by the Energy Information Administration in November 1984.



Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²			Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Production	Crude Oil ⁵	Petroleum Products	Petroleum Products Supplied	Crude Oil ⁵ and Petroleum Products
		Thousand Barrels per Day						Million Barrels
1973	Average	10,975	9,208	1,738	11	-146	17,308	1,008
1974	Average	10,498	8,774	1,688	-62	-117	16,653	⁸ 1,074
1975	Average	10,045	8,375	1,633	⁸ -17	⁸ -145	16,322	1,133
1976	Average	9,774	8,132	1,603	-39	96	17,461	1,112
1977	Average	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	Average	10,328	8,707	1,567	-78	172	18,847	1,278
1979	Average	10,179	8,552	1,584	-148	-25	18,513	1,341
1980	Average	10,214	8,597	1,573	-98	-42	17,056	⁸ 1,392
1981	Average	10,230	8,572	1,609	⁸ -290	⁸ 130	16,058	1,484
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,456
	February	10,312	8,702	1,563	-242	1,230	16,001	1,428
	March	10,284	8,667	1,572	121	1,047	15,560	1,392
	April	10,188	8,591	1,542	-37	1,583	16,046	1,346
	May	10,244	8,683	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,998	1,360
	July	10,229	8,658	1,513	-147	-926	14,821	1,393
	August	10,215	8,634	1,524	-440	-44	14,839	1,408
	September	10,279	8,701	1,518	263	-447	15,022	1,414
	October	10,299	8,701	1,530	-548	-47	14,859	1,432
	November	10,369	8,697	1,609	-398	-361	15,009	1,455
	December	10,276	8,598	1,628	128	688	15,487	⁸ 1,430
	Average	10,252	8,649	1,550	-136	283	15,296	
1983	January	10,331	8,697	1,580	⁸ -499	⁸ 772	14,722	1,452
	February	10,388	8,758	1,575	-320	1,113	14,792	1,430
	March	10,279	8,700	1,541	83	1,810	15,541	1,372
	April	10,322	8,776	1,506	-402	308	14,692	1,374
	May	10,190	8,631	1,493	-15	-602	14,505	1,394
	June	10,261	8,667	1,523	-122	-276	15,289	1,405
	July	10,228	8,636	1,539	233	-909	15,019	1,426
	August	10,284	8,679	1,562	-796	-271	15,480	1,460
	September	10,447	8,784	1,602	-239	-621	15,506	1,485
	October	10,434	8,771	1,604	-274	-442	14,962	1,508
	November	10,461	8,770	1,641	114	-182	15,500	1,510
	December	9,983	8,397	1,544	-329	2,133	16,726	1,454
	Average	10,299	8,688	1,559	-214	234	15,231	
1984	January	10,282	8,659	1,585	-342	1,085	16,726	1,430
	February	10,410	8,726	1,629	186	-1,353	15,389	1,464
	March	10,354	8,718	1,588	-2	643	16,017	1,444
	April	10,347	8,688	1,616	-565	-128	15,484	1,465
	May	10,415	8,752	1,610	-616	-422	15,566	1,497
	June	10,398	8,743	1,612	-95	-77	15,887	1,502
	July	10,487	8,769	1,649	-184	-184	15,547	1,514
	August*	10,476	8,781	1,663	R 250	R 185	R 16,130	R 1,500
	September**	NA	8,759	NA	326	-203	15,883	1,508
	Average	NA	8,733	NA	-118	-40	15,830	

¹ Includes lease condensate.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Stocks are totals as of end of period.

⁴ Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.

⁵ Includes stocks located in the Strategic Petroleum Reserve.

⁶ Includes crude oil for storage in the Strategic Petroleum Reserve.

⁷ Net Imports equal Imports minus Exports.

⁸ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

Crude Oil¹ and Petroleum Products Overview (continued)

		Imports			Exports			
		Total	Crude Oil ⁶	Petroleum Products	Total	Crude Oil	Petroleum Products	
Thousand Barrels per Day								
1973	Average	6,256	3,244	3,012	231	2	229	6,025
1974	Average	6,112	3,477	2,635	221	3	218	5,892
1975	Average	6,056	4,105	1,951	209	6	204	5,846
1976	Average	7,313	5,287	2,026	223	8	215	7,090
1977	Average	8,807	6,615	2,193	243	50	193	8,565
1978	Average	8,363	6,356	2,008	362	158	204	8,002
1979	Average	8,456	6,519	1,937	472	235	237	7,984
1980	Average	6,909	5,263	1,646	544	287	258	6,365
1981	Average	5,996	4,396	1,599	595	228	367	5,401
1982	January	5,332	3,693	1,639	829	238	591	4,503
	February	4,807	2,990	1,817	804	304	499	4,003
	March	4,484	2,874	1,610	882	321	561	3,802
	April	4,378	2,849	1,529	786	174	611	3,593
	May	4,811	3,309	1,503	803	262	542	4,008
	June	5,327	3,836	1,491	703	94	608	4,624
	July	5,890	4,248	1,642	741	229	512	5,149
	August	5,244	3,851	1,392	858	304	554	4,386
	September	5,414	3,636	1,778	791	184	606	4,824
	October	5,306	3,670	1,636	932	270	662	4,374
	November	5,744	3,862	1,882	786	262	524	4,958
	December	4,606	3,000	1,605	860	193	667	3,746
	Average	5,113	3,488	1,625	815	236	579	4,298
1983	January	4,438	2,964	1,474	973	117	856	3,464
	February	3,726	2,267	1,459	865	282	603	2,861
	March	3,690	2,290	1,400	801	174	627	2,889
	April	4,727	3,118	1,609	809	88	721	3,918
	May	5,089	3,360	1,729	848	280	568	4,241
	June	5,326	3,577	1,749	774	144	630	4,552
	July	5,741	3,871	1,870	571	145	426	5,170
	August	6,159	4,227	1,933	663	172	491	5,496
	September	6,129	4,210	1,919	684	177	507	5,445
	October	5,258	3,446	1,812	576	140	436	4,882
	November	5,210	3,337	1,873	679	186	494	4,531
	December	5,033	3,213	1,820	639	95	544	4,394
	Average	5,051	3,329	1,722	739	164	575	4,312
1984	January	5,347	3,029	2,318	575	153	422	4,772
	February	5,643	2,952	2,691	582	185	397	5,081
	March	5,253	3,455	1,798	840	236	605	4,413
	April	5,319	3,417	1,902	655	172	483	4,864
	May	5,916	3,927	1,989	766	219	548	5,150
	June	5,304	3,410	1,893	864	222	642	4,440
	July	5,387	3,646	1,741	536	108	429	4,851
	August*	R 5,036	R 3,244	R 1,793	732	190	542	4,305
	September**	4,959	3,170	1,789	NA	NA	NA	NA
	Average	5,351	3,364	1,987	NA	NA	NA	NA

Footnotes continued.

* See Explanatory Note 9.1.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available.

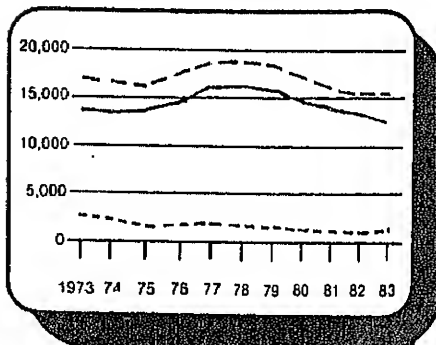
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

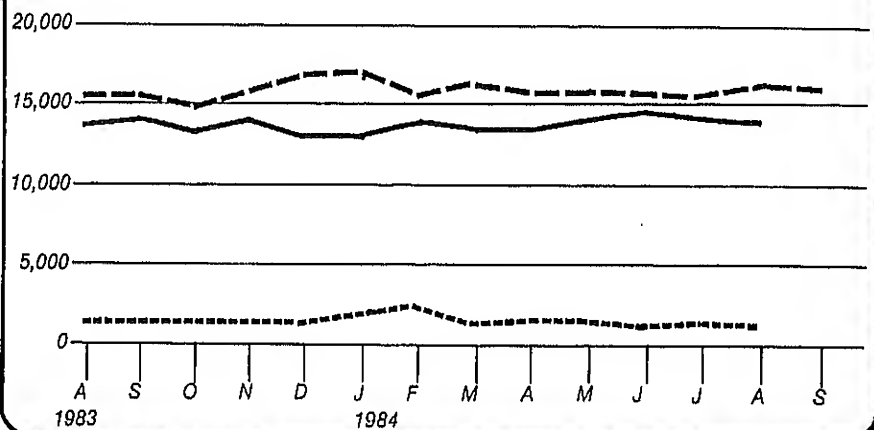
Petroleum Overview

(Thousand Barrels Per Day)



Annual

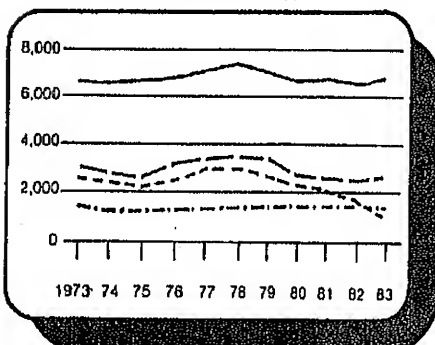
Legend
 — Petroleum Product Supplied
 - - - Refinery Production
 . . . Net Petroleum Product Imports



Monthly

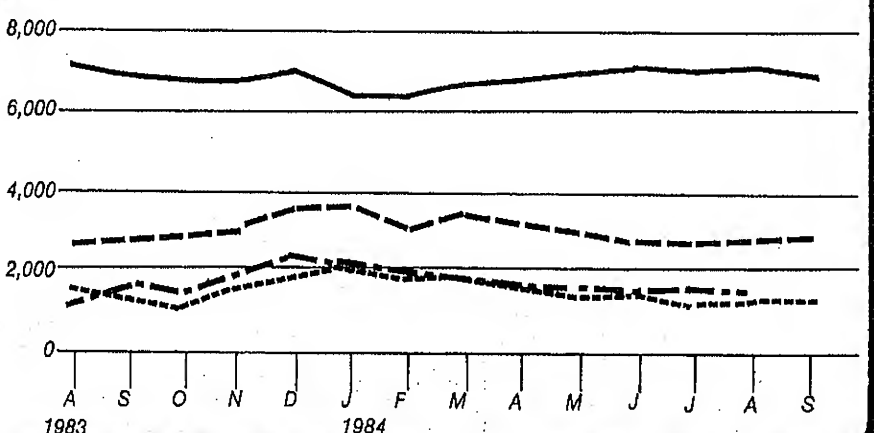
Petroleum Products Supplied

(Thousand Barrels Per Day)



Annual

Legend
 — Motor Gasoline
 - - - Distillate Fuel Oil
 . . . Residual Fuel Oil
 - . . LPG¹

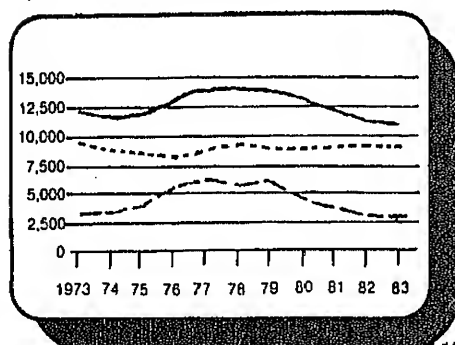


Monthly

¹ Liquefied Petroleum Gases

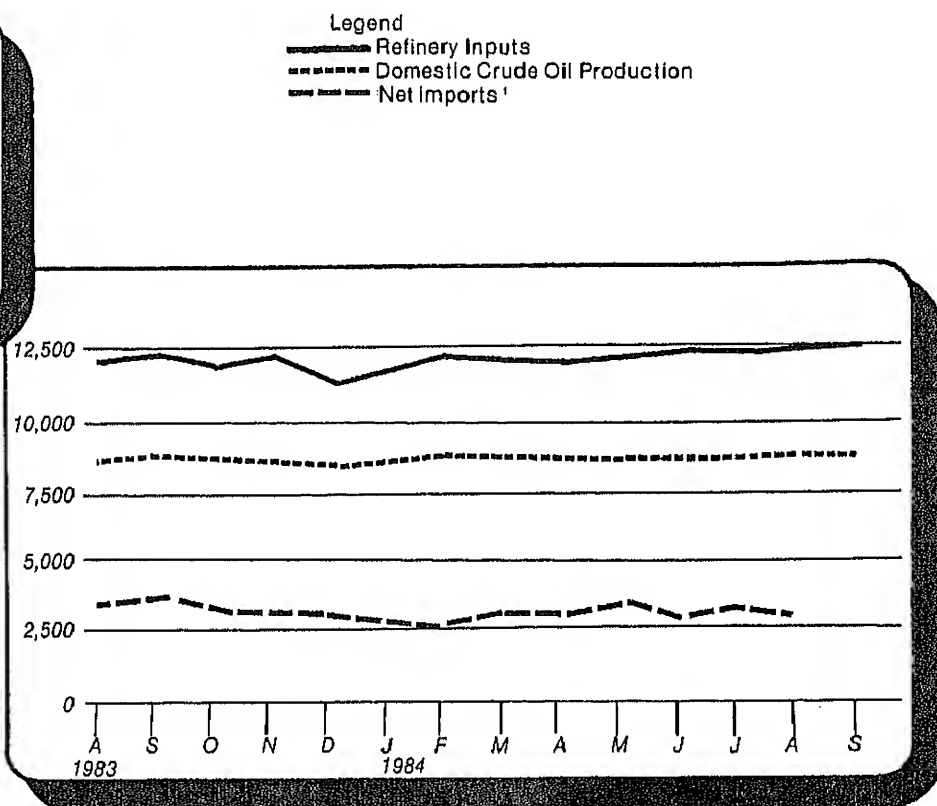
Crude Oil Supply and Disposition

(Thousand Barrels Per Day)



Annual

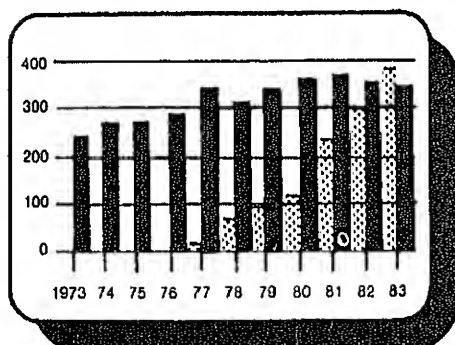
¹ Excludes SPR Imports



Monthly

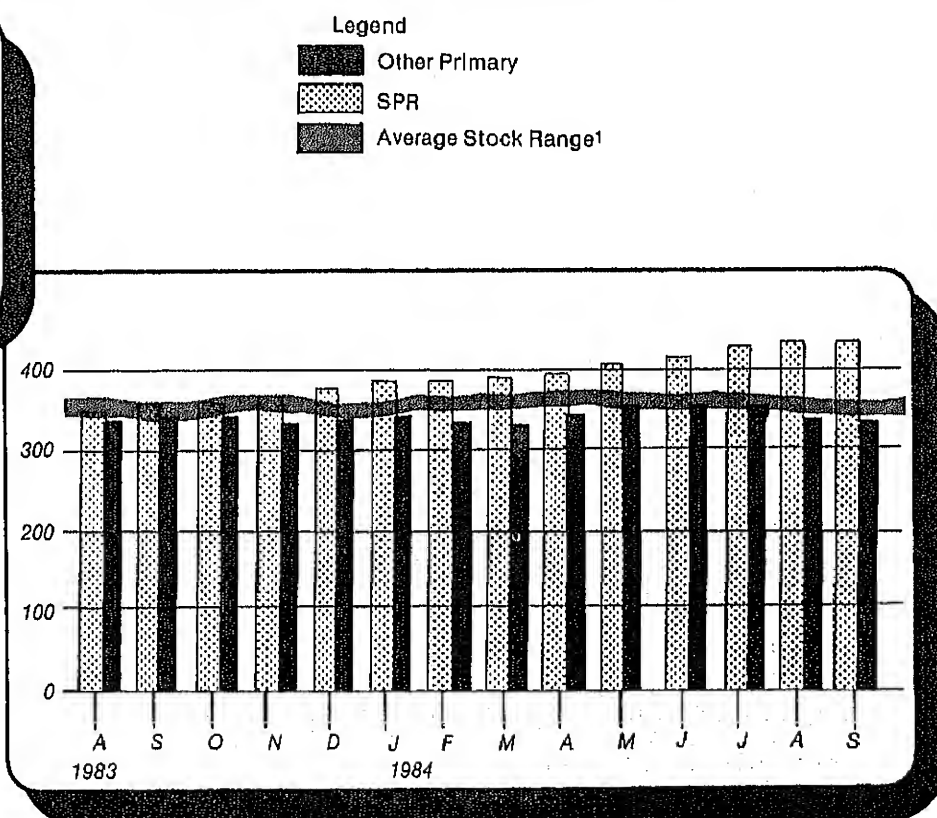
Crude Oil Ending Stocks

(Million Barrels)



Annual

¹ Level and width of Average Stock range for other primary crude oil based on 3 years of data, Jul. 81-Jun. 84. See Explanatory Note 6.



Monthly

Crude Oil¹ Supply and Disposition

		Supply							Unac- counted for Crude Oil
		Field Production		Imports			Stock Withdrawal ³		
		Total Domestic	Alaskan	Total	SPR ⁴	Other	SPR ⁴	Other	
1973	Average	9,208	198	3,244		3,244		11	3
1974	Average	8,774	193	3,477		3,477		-62	-25
1975	Average	8,375	191	4,105		4,105		-17	17
1976	Average	8,132	173	5,287		5,287		-39	77
1977	Average	8,245	464	6,615	21	6,594	-20	-150	-6
1978	Average	8,707	1,229	6,356	162	6,195	-163	84	-57
1979	Average	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980	Average	8,597	1,617	5,263	44	5,219	-45	-52	34
1981	Average	8,572	1,609	4,396	256	4,141	-336	6 46	83
1982	January	8,509	1,705	3,693	170	3,523	-159	-242	101
	February	8,702	1,707	2,990	159	2,830	-213	-29	156
	March	8,667	1,696	2,874	185	2,689	-235	357	2
	April	8,591	1,691	2,849	190	2,659	-233	196	231
	May	8,683	1,707	3,309	204	3,105	-176	205	111
	June	8,646	1,665	3,836	105	3,732	-105	144	133
	July	8,658	1,710	4,248	97	4,150	-97	-50	-20
	August	8,634	1,697	3,851	208	3,643	-208	-232	189
	September	8,701	1,705	3,636	139	3,497	-143	406	-210
	October	8,701	1,706	3,670	216	3,454	-216	-332	249
	November	8,697	1,676	3,862	180	3,683	-179	-219	-124
	December	8,598	1,682	3,000	124	2,877	-125	252	35
	Average	8,649	1,696	3,488	165	3,323	-174	38	71
1983	January	8,697	1,732	2,964	219	2,746	-219	6 -280	170
	February	8,758	1,717	2,267	197	2,070	-197	-123	262
	March	8,700	1,732	2,290	201	2,089	-184	267	31
	April	8,776	1,721	3,118	205	2,913	-197	-205	98
	May	8,631	1,662	3,360	289	3,071	-293	278	169
	June	8,667	1,687	3,577	190	3,387	-188	66	370
	July	8,636	1,715	3,871	274	3,597	-284	497	-167
	August	8,679	1,697	4,227	350	3,876	-358	-438	281
	September	8,784	1,738	4,210	309	3,901	-307	68	-30
	October	8,771	1,733	3,446	202	3,244	-201	-73	44
	November	8,770	1,720	3,337	171	3,166	-135	250	34
	December	8,397	1,711	3,213	193	3,020	-252	-78	117
	Average	8,688	1,714	3,329	234	3,096	-234	20	114
1984	January	8,659	1,741	3,029	200	2,829	-173	-169	451
	February	8,726	1,740	2,952	85	2,868	-96	282	487
	March	8,718	1,740	3,455	148	3,307	-147	145	66
	April	8,688	1,725	3,417	170	3,247	-170	-396	590
	May	8,752	1,793	3,927	246	3,681	-245	-371	463
	June	8,743	1,792	3,410	309	3,101	-309	214	490
	July	8,769	1,769	3,646	329	3,317	-328	144	25
	August*	8,781	1,725	R 3,244	R 180	R 3,064	R -179	R 429	383
	September**	8,759	1,725	3,170	65	3,105	-65	391	NA
	Average	8,733	1,760	3,364	193	3,171	-191	73	NA

Crude Oil¹ Supply and Disposition (continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ⁵	Crude Losses	Refinery Inputs	Exports	Products Supplied ⁵	Total Crude Oil	SPR ⁴	Other Primary
		Thousand Barrels per Day					Million Barrels		
1973	Average	-19	13	12,431	2	NA	242		242
1974	Average	-15	13	12,133	3	NA	265		265
1975	Average	-17	13	12,442	6	NA	271		271
1976	Average	-18	15	13,416	8	NA	285		285
1977	Average	-14	16	14,602	50	NA	348	7	340
1978	Average	-14	16	14,739	158	NA	376	67	309
1979	Average	-13	16	14,648	235	NA	430	91	339
1980	Average	-13	15	13,481	287	NA	⁶ 466	108	⁶ 358
1981	Average	-58	5	12,470	228	NA	594	230	363
1982	January	-63	3	11,599	238	NA	606	235	371
	February	-64	2	11,236	304	NA	613	241	372
	March	-63	5	11,276	321	NA	609	249	361
	April	-65	3	11,392	174	NA	610	256	355
	May	-62	3	11,806	262	NA	609	261	348
	June	-60	7	12,494	94	NA	608	264	344
	July	-60	3	12,446	229	NA	613	267	346
	August	-57	2	11,871	304	NA	626	274	353
	September	-56	4	12,146	184	NA	619	278	341
	October	-51	2	11,749	270	NA	636	285	361
	November	-51	1	11,724	262	NA	648	290	358
	December	-53	1	11,514	193	NA	⁶ 644	294	350
	Average	-59	3	11,774	236	NA			
1983	January	NA	2	11,143	117	71	660	301	360
	February	NA	3	10,633	262	71	669	306	363
	March	NA	2	10,859	174	70	667	312	355
	April	NA	2	11,433	88	68	679	318	361
	May	NA	1	11,800	280	63	679	327	353
	June	NA	(^S)	12,284	144	64	683	332	351
	July	NA	2	12,360	145	65	676	341	335
	August	NA	1	12,152	172	64	700	352	349
	September	NA	1	12,482	177	66	708	361	347
	October	NA	1	11,782	140	63	716	367	349
	November	NA	2	12,004	186	64	713	371	341
	December	NA	1	11,234	95	67	723	379	344
	Average	NA	2	11,685	164	66			
1984	January	NA	1	11,579	153	64	733	384	348
	February	NA	1	12,100	185	65	727	387	340
	March	NA	2	11,936	236	62	728	392	336
	April	NA	(^S)	11,893	172	64	744	397	348
	May	NA	2	12,243	219	62	764	404	359
	June	NA	2	12,263	222	61	766	414	353
	July	NA	1	12,087	108	60	772	424	348
	August*	NA	1	R 12,403	190	63	R 764	429	R 335
	September**	NA	NA	12,475	NA	NA	762	432	331
	Average	NA	NA	12,108	NA	NA			

Footnotes continued.

* See Explanatory Note 9.2.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (^S) = Less than 500 barrels per day.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Crude Oil and Petroleum Product Imports

		Imports from OPEC Sources ¹									
		Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ²	Total Arab OPEC ³
		Thousand Barrels per Day									
1973	Average	136	164	486	71	213	223	459	1,135	106	2,993
1974	Average	190	4	461	74	300	469	713	979	88	3,280
1975	Average	282	232	715	117	390	280	762	702	122	3,601
1976	Average	432	453	1,230	254	539	298	1,025	700	134	5,068
1977	Average	559	723	1,380	335	541	535	1,143	690	287	6,193
1978	Average	649	654	1,144	385	573	555	919	645	226	5,751
1979	Average	636	658	1,356	281	420	304	1,080	690	212	5,637
1980	Average	488	554	1,261	172	348	9	857	481	130	4,300
1981	Average	311	319	1,129	81	366	0	620	406	90	3,323
1982	January	254	161	877	111	289	0	663	376	128	2,859
	February	139	92	693	89	244	0	584	355	102	2,297
	March	91	37	555	155	200	0	522	399	91	2,061
	April	85	0	511	122	215	0	427	426	85	1,871
	May	179	0	601	116	236	0	222	422	54	1,830
	June	115	0	593	94	215	72	537	361	110	2,096
	July	159	0	660	108	327	69	910	356	95	2,685
	August	181	0	489	133	271	27	574	299	133	2,107
	September	179	0	432	57	191	21	477	518	69	1,943
	October	249	7	494	61	242	108	313	504	106	2,084
	November	247	14	489	47	283	34	479	528	115	2,235
	December	155	0	237	12	265	88	462	399	73	1,690
	Average	170	26	552	92	248	35	514	412	97	2,146
1983	January	207	0	282	47	255	43	186	397	54	1,412
	February	115	0	214	9	217	0	92	393	28	1,068
	March	63	0	103	0	138	0	121	440	201	1,066
	April	227	0	162	(*)	210	0	186	523	125	1,432
	May	286	0	122	12	405	37	385	455	69	1,771
	June	300	0	188	40	466	38	467	335	138	1,973
	July	283	0	182	64	484	112	525	434	187	2,251
	August	378	0	448	52	433	213	464	511	230	2,728
	September	423	0	587	21	501	86	324	432	221	2,595
	October	261	0	638	16	368	12	307	337	169	2,108
	November	184	0	545	56	302	21	215	452	135	1,910
	December	144	0	569	45	294	9	329	415	163	1,969
	Average	240	0	337	30	338	48	302	422	144	1,862
1984	January	242	0	463	114	278	0	243	547	51	1,939
	February	348	0	324	33	267	0	244	481	174	1,871
	March	283	0	307	112	284	67	260	354	127	1,792
	April	280	0	320	95	221	0	288	581	158	1,944
	May	456	0	329	240	480	0	289	621	242	2,657
	June	284	0	411	48	415	0	243	574	139	2,112
	July	332	0	429	112	384	0	204	535	242	2,237
	August	404	0	438	82	281	0	114	487	216	2,021
	Average	329	0	378	105	327	8	235	522	169	2,074

¹ Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

² Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

³ Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

		Imports from Non-OPEC Sources ⁴										
		Baha- mas	Canada	Mexico	Nether- lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
		Thousand Barrels per Day										
1973	Average	174	1,325	16	585	255	15	99	329	465	3,263	6,256
1974	Average	164	1,070	8	511	251	8	90	391	340	2,832	6,112
1975	Average	152	846	71	332	242	14	90	408	300	2,454	6,056
1976	Average	118	599	87	275	274	31	88	422	353	2,247	7,313
1977	Average	171	517	179	211	289	126	105	466	550	2,614	8,807
1978	Average	160	467	318	229	253	180	94	429	484	2,613	8,363
1979	Average	147	538	439	231	190	202	92	431	548	2,819	8,456
1980	Average	78	455	533	225	176	176	88	388	491	2,609	8,909
1981	Average	74	447	522	197	133	375	62	327	534	2,672	5,996
1982	January	58	513	425	179	106	346	62	334	452	2,474	5,332
	February	67	537	476	221	120	181	38	362	508	2,510	4,807
	March	43	437	503	189	118	294	62	307	480	2,433	4,484
	April	82	360	476	184	166	247	36	266	690	2,507	4,387
	May	77	419	766	152	95	516	47	302	607	2,981	4,811
	June	32	481	797	148	129	557	58	322	708	3,231	5,327
	July	64	536	783	158	118	433	38	376	698	3,204	5,890
	August	80	443	853	145	106	520	24	317	650	3,137	5,244
	September	92	493	897	195	89	631	51	278	746	3,472	5,414
	October	45	459	682	148	109	666	52	262	801	3,222	5,306
	November	51	553	860	212	90	623	81	334	706	3,508	5,744
	December	88	561	689	174	102	438	48	336	480	2,916	4,606
	Average	65	482	685	175	112	456	50	316	627	2,968	5,113
1983	January	68	534	849	228	73	314	40	299	621	3,026	4,438
	February	92	586	722	183	81	193	50	192	558	2,658	3,726
	March	86	488	775	187	78	240	43	162	565	2,624	3,690
	April	174	454	981	216	85	421	20	183	759	3,295	4,727
	May	135	518	944	153	108	484	42	235	699	3,318	5,089
	June	137	586	830	173	120	440	48	262	757	3,353	5,326
	July	69	634	849	198	107	369	37	364	864	3,490	5,741
	August	144	542	906	197	90	461	40	313	738	3,431	6,159
	September	148	533	849	261	82	475	33	307	845	3,534	6,129
	October	171	532	771	172	106	414	48	357	580	3,151	5,258
	November	148	556	726	144	110	334	55	427	801	3,300	5,210
	December	127	604	710	153	113	429	22	278	628	3,063	5,033
	Average	125	547	826	189	96	382	40	282	701	3,189	5,051
1984	January	152	624	705	277	54	382	53	390	772	3,408	5,347
	February	142	620	747	288	77	338	58	418	1,083	3,772	5,643
	March	88	726	707	169	93	400	34	247	996	3,460	5,253
	April	88	691	859	207	91	282	37	257	863	3,375	5,319
	May	31	715	675	192	57	418	38	336	796	3,259	5,916
	June	50	499	732	234	104	318	53	268	934	3,192	5,304
	July	14	574	738	99	120	362	27	292	924	3,150	5,387
	August	57	551	621	205	98	388	34	236	826	3,015	5,036
	Average	77	625	722	208	87	362	42	305	898	3,326	5,399

Footnotes continued.

⁴ Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

(*) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve Imports are included.

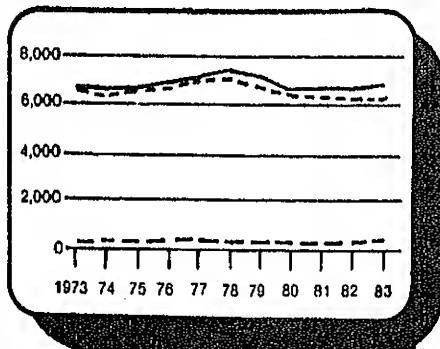
Total may not equal sum of components due to independent rounding.

Geographic coverage: The 50 United States and the District of Columbia.

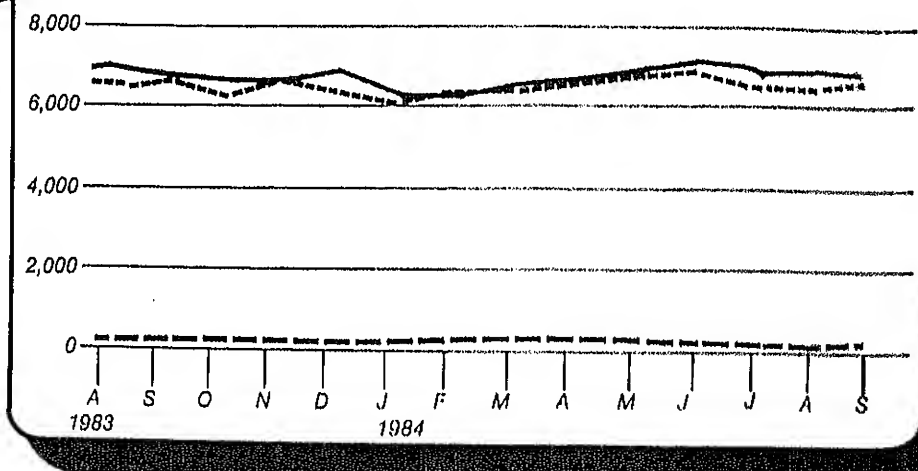
Source: See the last page of this section.

Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)

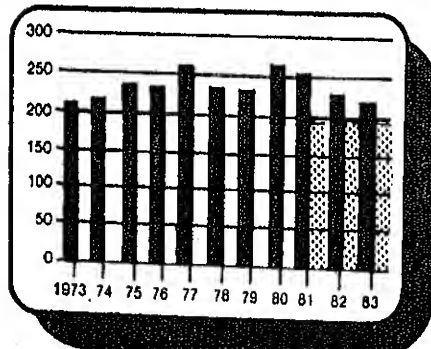


Annual



Motor Gasoline Ending Stocks

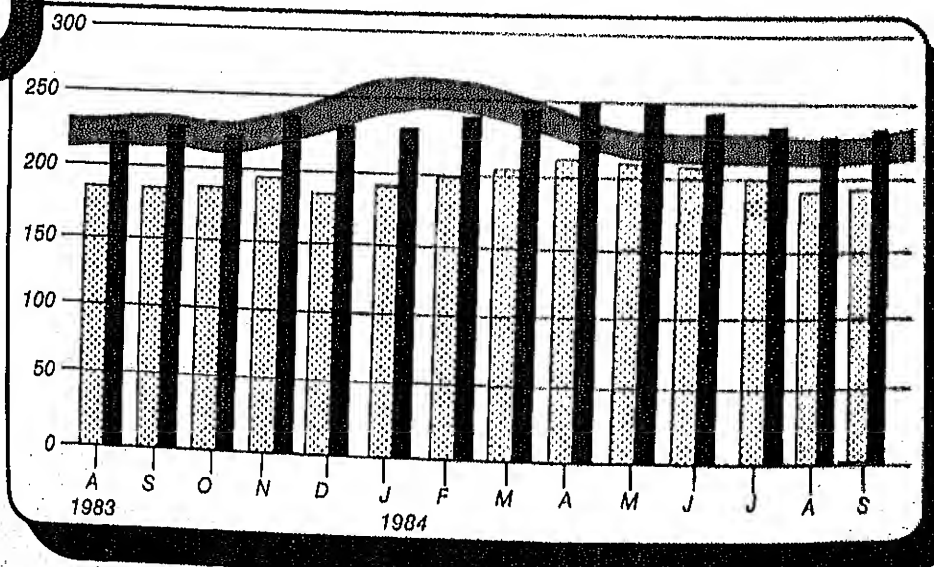
(Million Barrels)



Annual

¹ Includes motor gasoline blending components and finished motor gasoline.

² Level and width of Average Stock Range for total motor gasoline based on 3 years of data, Jul. 81-Jun. 84. See Explanatory Note 6.



Month

Finished Motor Gasoline Supply and Disposition

		Supply			Disposition				Ending Stocks ¹	
		Total Produc- tion	Imports ²	Stock With- drawal ^{2 3}	Exports	Products Supplied			Total Motor Gasoline ⁵	Finished Motor Gasoline
						Total	Unleaded ⁴	Unleaded		
Thousand Barrels per Day								Percent of Total	Million Barrels	
1973	Average	6,535	134	9	4	6,874	NA	NA	209	
1974	Average	6,360	204	-24	2	6,537	NA	NA	⁶ 218	
1975	Average	6,520	184	⁶ -28	2	6,875	NA	NA	235	
1976	Average	6,841	131	10	3	6,978	NA	NA	231	
1977	Average	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	Average	7,169	190	54	1	7,412	2,521	34.0	238	
1979	Average	6,852	181	2	(⁸)	7,034	2,798	39.8	237	
1980	Average	6,506	140	-66	1	6,579	3,067	46.6	⁶ 261	
1981	Average ⁷	6,405	157	⁶ 28	2	6,588	3,264	49.5	253	
1982	January	6,167	128	-316	18	5,961	3,067	51.5	261	213
	February	5,899	133	172	8	6,196	3,210	51.8	257	208
	March	5,994	183	334	44	6,466	3,358	51.9	247	198
	April	6,095	185	650	33	6,897	3,495	50.7	221	179
	May	6,319	182	177	23	6,655	3,415	51.3	214	173
	June	6,754	230	-134	14	6,835	3,565	52.2	219	177
	July	6,768	225	-178	24	6,790	3,577	52.7	226	183
	August	6,419	291	-81	16	6,614	3,526	53.3	227	185
	September	6,527	223	-198	22	6,531	3,404	52.1	234	191
	October	6,262	185	-42	15	6,391	3,351	52.4	234	192
	November	6,273	211	101	11	6,574	3,451	52.5	230	189
	December	6,542	178	-165	7	6,549	3,485	53.2	⁶ 235	⁶ 194
	Average	6,338	197	25	20	6,539	3,409	52.1		
1983	January	6,065	153	⁶ -167	(⁸)	6,051	3,364	55.6	250	207
	February	5,848	128	24	(⁸)	6,000	3,264	54.4	250	207
	March	5,906	186	768	23	6,836	3,622	53.0	223	183
	April	6,201	255	-3	1	6,452	3,492	54.1	221	183
	May	6,397	305	-83	1	6,617	3,558	53.8	223	185
	June	6,655	277	84	22	6,994	3,792	54.2	223	183
	July	6,707	302	-225	18	6,765	3,746	55.4	231	190
	August	6,537	250	161	13	6,936	3,836	55.3	226	185
	September	6,611	279	-149	14	6,727	3,691	54.9	229	189
	October	6,188	330	72	2	6,588	3,711	56.3	227	187
	November	6,634	269	-298	2	6,603	3,692	55.9	236	196
	December	6,308	224	339	25	6,846	3,966	57.9	222	186
	Average	6,340	247	45	10	6,622	3,647	55.1		
1984	January	6,037	233	-1	1	6,268	3,606	57.5	225	186
	February	6,320	303	-384	2	6,237	3,585	57.5	237	197
	March	6,375	343	-197	9	6,512	3,747	57.5	243	203
	April	6,528	308	-153	(⁸)	6,682	3,854	57.7	248	207
	May	6,650	329	-106	(⁸)	6,873	3,990	58.1	253	211
	June	6,620	272	217	17	7,092	4,210	59.4	245	204
	July	6,481	247	130	9	6,849	4,094	59.8	239	200
	August*	R 6,436	R 243	R 437	1	R 7,114	4,263	59.9	R 225	R 187
	September**	6,573	299	-22	NA	6,838	NA	NA	229	191
	Average	6,446	286	-6	NA	6,720	NA	NA		

¹ Stocks are totals as of end of period.

² Beginning in 1981, excludes blending components.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ Includes gasohol.

⁵ Includes motor gasoline blending components.

⁶ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁷ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.3.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.

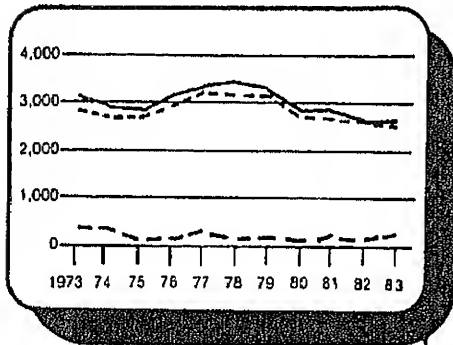
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

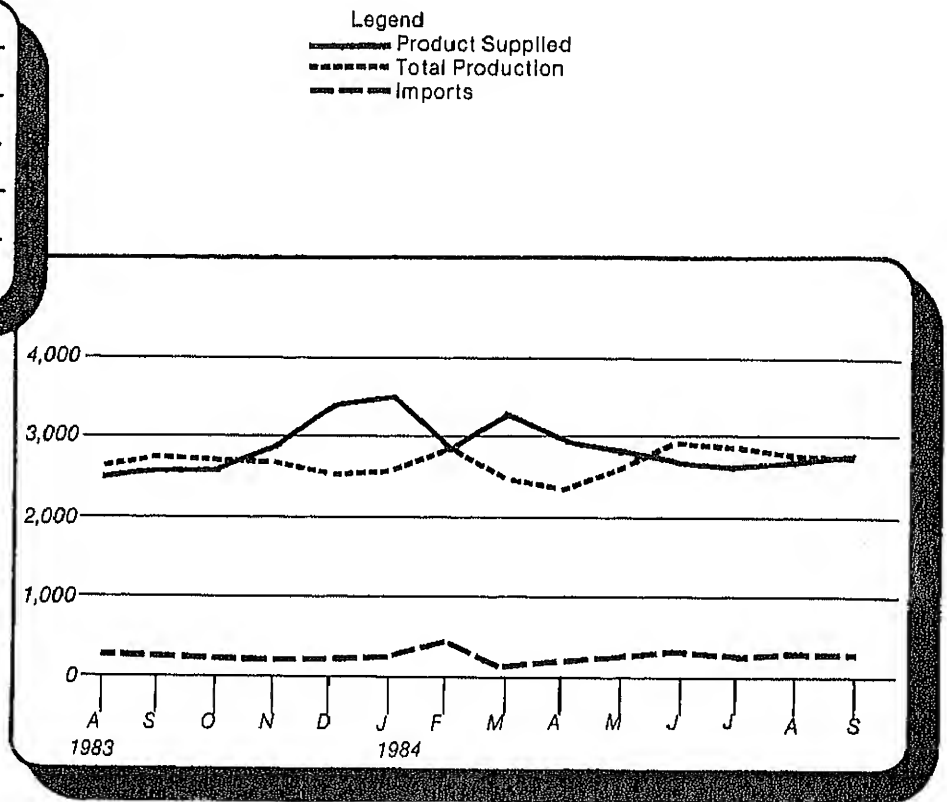
Source: See the last page of this section.

Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



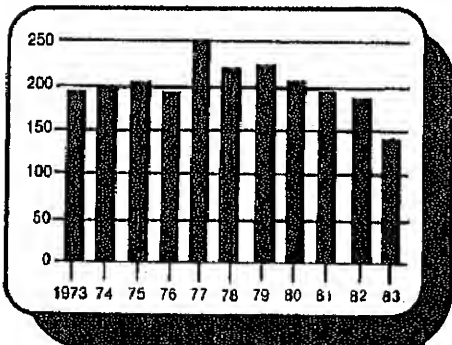
Annual



Monthly

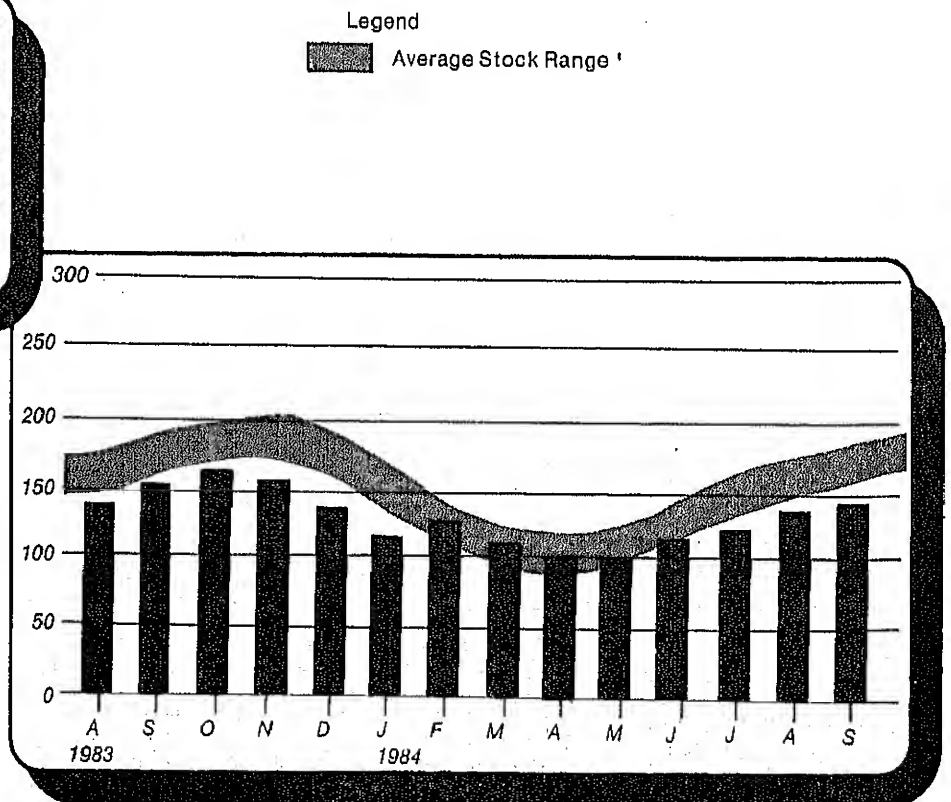
Distillate Fuel Oil Ending Stocks

(Million Barrels)



Annual

¹ Level and width of Average Stock Range for distillate fuel oil is based on 3 years on data. Jul. 81-Jun. 84. See Explanatory Note 6.



Monthly

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly ³	Exports	Products Supplied ³	
		Thousand Barrels per Day						Million Barrels
1973	Average	2,822	392	-115	2	9	3,092	196
1974	Average	2,669	289	-9	2	2	2,948	⁴ 200
1975	Average	2,654	155	⁴ 40	2	1	2,851	209
1976	Average	2,924	146	62	1	1	3,133	186
1977	Average	3,278	250	-176	1	1	3,352	250
1978	Average	3,167	173	93	1	3	3,432	216
1979	Average	3,153	193	-34	1	3	3,311	229
1980	Average	2,662	142	64	1	3	2,866	⁴ 205
1981	Average ⁵	2,613	173	⁴ 38	10	5	2,829	192
1982	January	2,606	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,288	48	682	10	84	2,945	126
	April	2,358	59	612	13	64	2,978	108
	May	2,618	74	-183	10	75	2,444	114
	June	2,729	102	-335	10	55	2,452	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-338	10	40	2,218	159
	September	2,657	61	-85	12	139	2,507	161
	October	2,838	91	-289	8	66	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,655	109	225	10	143	2,855	⁴ 179
	Average	2,606	93	35	10	74	2,671	
1983	January	2,321	68	⁴ 580	NA	173	2,797	168
	February	2,135	59	691	NA	105	2,780	148
	March	1,993	42	971	NA	59	2,947	118
	April	2,171	73	500	NA	47	2,697	103
	May	2,444	147	-186	NA	50	2,354	109
	June	2,546	179	-161	NA	40	2,524	114
	July	2,604	267	-546	NA	55	2,270	131
	August	2,615	301	-379	NA	43	2,495	142
	September	2,739	259	-386	NA	37	2,575	154
	October	2,681	260	-276	NA	55	2,611	163
	November	2,680	203	45	NA	54	2,874	161
	December	2,522	221	676	NA	54	3,365	140
	Average	2,456	174	124	NA	64	2,690	
1984	January	2,585	270	676	NA	40	3,490	119
	February	2,864	458	-439	NA	41	2,842	132
	March	2,480	115	727	NA	66	3,256	110
	April	2,347	220	393	NA	32	2,929	98
	May	2,633	252	-10	NA	48	2,827	98
	June	2,879	266	-490	NA	53	2,602	113
	July	2,736	198	-375	NA	40	2,518	125
	August*	R 2,678	R 263	R -291	NA	74	R 2,575	R 134
	September**	2,714	272	-193	NA	NA	2,747	142
	Average	2,658	256	4	NA	NA	2,866	

¹ Stocks are totals as of end of period.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available, (s) = Less than 500 barrels per day.

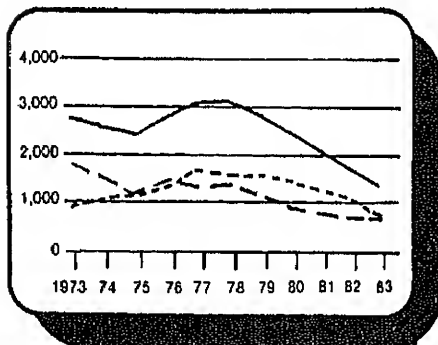
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

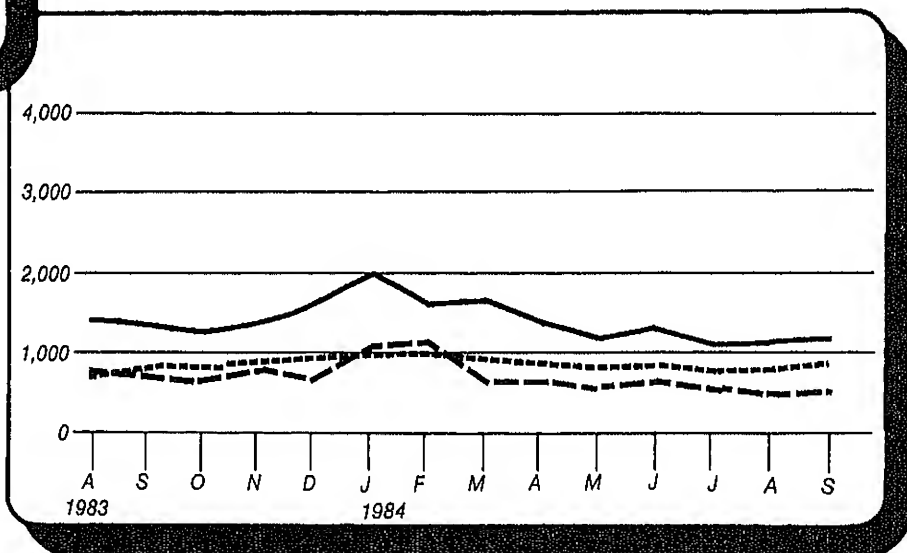
Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Annual

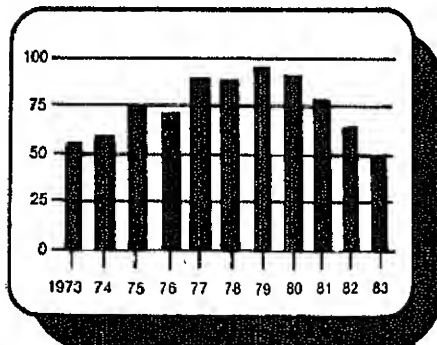
Legend
 — Product Supplied
 - - - Total Production
 . . . Imports



Monthly

Residual Fuel Oil Ending Stocks

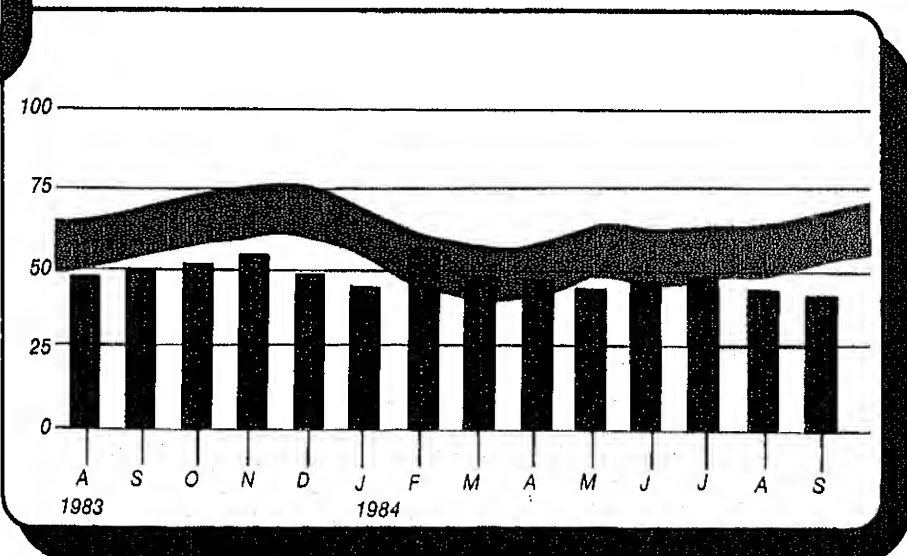
(Million Barrels)



Annual

Legend

■ Average Stock Range¹



Monthly

¹ Level and width of Average Stock Range for residual fuel oil based on 3 years of data. Jul. 81-Jun. 84. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly ³	Exports	Products Supplied ³	
		Thousand Barrels per Day						Million Barrels
1973	Average	971	1,853	5	17	23	2,822	53
1974	Average	1,070	1,587	-17	13	14	2,639	⁴ 60
1975	Average	1,235	1,223	⁴ 2	15	15	2,462	74
1976	Average	1,377	1,413	5	17	12	2,801	72
1977	Average	1,754	1,359	-48	13	6	3,071	90
1978	Average	1,667	1,355	-1	13	13	3,023	90
1979	Average	1,687	1,151	-15	12	9	2,826	96
1980	Average	1,580	939	10	12	33	2,508	⁴ 92
1981	Average ⁵	1,321	800	⁴ 37	48	118	2,088	78
1982	January	1,235	831	301	53	235	2,185	69
	February	1,186	956	363	53	213	2,344	58
	March	1,123	912	12	53	197	1,903	58
	April	1,166	788	150	52	234	1,923	54
	May	1,128	742	-172	52	191	1,560	59
	June	1,074	652	-57	50	217	1,501	61
	July	1,028	657	56	49	239	1,550	59
	August	965	551	203	47	235	1,531	53
	September	1,008	872	-308	44	148	1,470	62
	October	955	783	-57	43	234	1,490	64
	November	989	837	-94	43	182	1,591	66
	December	989	747	6	43	186	1,598	⁴ 66
	Average	1,070	776	32	48	209	1,716	
1983	January	972	691	⁴ 258	NA	294	1,626	61
	February	857	647	257	NA	191	1,570	53
	March	835	686	227	NA	169	1,579	46
	April	941	753	-10	NA	310	1,374	47
	May	936	738	-141	NA	190	1,342	51
	June	828	677	36	NA	218	1,323	50
	July	769	684	-64	NA	90	1,299	52
	August	710	739	115	NA	165	1,400	48
	September	826	706	-47	NA	134	1,351	50
	October	807	638	-50	NA	153	1,243	51
	November	845	780	-97	NA	167	1,362	54
	December	897	649	182	NA	141	1,587	49
	Average	852	699	55	NA	185	1,421	
1984	January	953	1,061	119	NA	151	1,981	45
	February	1,003	1,107	-420	NA	87	1,602	58
	March	887	633	321	NA	204	1,637	48
	April	840	637	9	NA	130	1,357	47
	May	829	554	35	NA	200	1,218	46
	June	841	676	-17	NA	176	1,324	47
	July	792	586	-77	NA	99	1,213	49
	August*	R 808	R 572	R 146	NA	260	R 1,266	R 45
	September**	872	548	-30	NA	NA	1,257	44
	Average	868	707	13	NA	NA	1,428	

¹ Stocks are totals as of end of period.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

⁴ In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

⁵ Beginning in January 1981, survey forms were modified. See Explanatory Note 12.

* See Explanatory Note 9.4.

** Italics denote estimates based upon preliminary data. See Explanatory Note 8.

R = Revised data. NA = Not available. (P) = Less than 500 barrels per day.

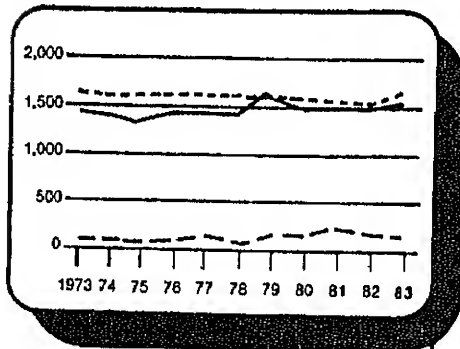
Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

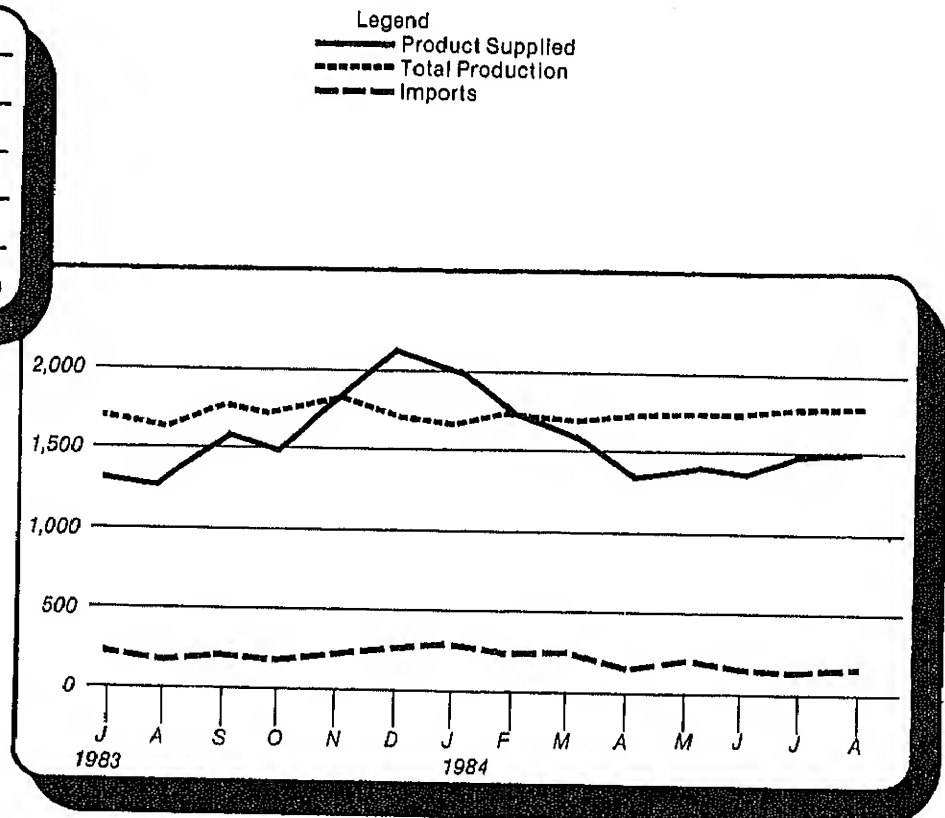
Source: See the last page of this section.

Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



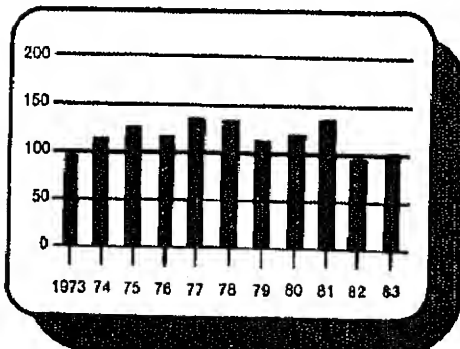
Annual



Monthly

Liquefied Petroleum Gases Ending Stocks

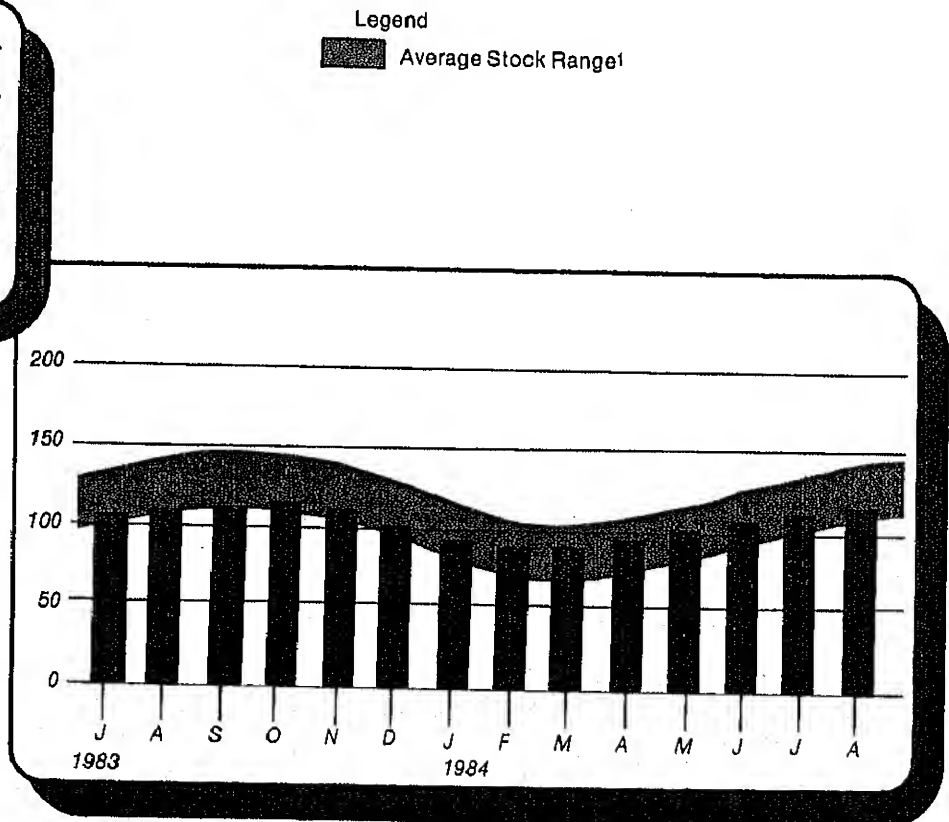
(Million Barrels)



Annual

Legend

Average Stock Range¹



Monthly

¹ Level and width of Average Stock Ranges for liquefied petroleum gas based on 3 years of data, Jul. 81-Jun. 84. See Explanatory Note 6.

Liquefied Petroleum Gases¹ Supply and Disposition

	Supply			Disposition			Ending Stocks ²
	Total Production	Imports	Stock Withdrawal ³	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 Average	1,600	132	-35	220	27	1,449	99
1974 Average	1,585	123	-38	220	25	1,408	⁴ 113
1975 Average	1,527	112	⁴ -35	246	26	1,333	125
1976 Average	1,535	130	24	260	25	1,404	116
1977 Average	1,566	161	-55	233	18	1,422	136
1978 Average	1,537	123	12	239	20	1,413	132
1979 Average	1,556	217	70	236	15	1,592	111
1980 Average	1,535	216	-27	233	21	1,469	⁴ 120
1981 Average	1,571	244	⁴ -18	289	42	1,466	135
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	⁴ 94
Average	1,528	226	111	300	65	1,499	
1983 January	1,611	240	⁴ 520	313	118	1,939	86
February	1,600	305	128	244	76	1,713	82
March	1,543	166	-9	197	127	1,377	82
April	1,607	124	-156	198	116	1,260	87
May	1,613	167	-225	207	84	1,263	94
June	1,664	172	-334	203	59	1,241	104
July	1,656	191	-221	217	55	1,354	111
August	1,586	160	-199	229	29	1,289	117
September	1,705	178	-30	236	86	1,531	118
October	1,688	160	-81	268	32	1,467	120
November	1,785	180	70	362	33	1,640	118
December	1,645	247	575	363	66	2,038	⁴ 101
Average	1,642	190	4	253	73	1,509	
1984 January	1,610	269	⁴ 470	333	23	1,993	93
February	1,690	237	146	323	41	1,708	89
March	1,685	241	12	289	68	1,581	89
April	1,711	155	-170	253	54	1,389	94
May	1,709	211	-221	244	42	1,412	101
June	1,714	158	-189	237	53	1,394	106
July	1,750	132	-138	232	43	1,469	111
August*	1,744	154	-132	241	34	1,491	115
Average	1,702	195	-28	269	46	1,555	

¹ Includes ethane, propane, normal butane, and isobutane.

Beginning in January 1984, unfractionated stream is reported by individual product.

² Stocks are totals as of end of period.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.5.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawal ³	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Million Barrels
1973	Average	3,693	502	-9	750	166	3,270	208
1974	Average	3,558	432	-28	665	174	3,123	⁴ 218
1975	Average	3,424	277	⁴ -2	537	160	3,002	219
1976	Average	3,843	208	-5	524	175	3,145	220
1977	Average	3,912	205	-27	514	165	3,410	230
1978	Average	4,046	166	14	492	187	3,568	225
1979	Average	4,153	195	-37	352	209	3,749	238
1980	Average	3,956	210	-23	311	198	3,634	⁴ 247
1981	Average	3,739	226	⁴ 46	723	199	3,088	282
1982	January	3,171	269	-7	624	180	2,631	282
	February	3,403	305	-153	663	138	2,755	287
	March	3,466	243	-191	725	161	2,631	293
	April	3,408	309	73	796	204	2,790	290
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	216	2,954	281
	July	3,660	408	-1	856	187	3,023	281
	August	3,583	346	217	743	202	3,201	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	266	2,976	264
	November	3,498	423	-28	837	269	2,786	264
	December	3,324	313	366	885	275	2,842	⁴ 253
	Average	3,453	334	80	787	211	2,869	
1983	January	3,194	322	⁴ -419	588	271	2,239	271
	February	3,229	321	12	673	232	2,658	270
	March	3,381	319	-147	572	249	2,732	275
	April	3,299	404	-24	592	247	2,840	276
	May	3,405	374	35	705	242	2,866	275
	June	3,610	444	96	717	292	3,144	272
	July	3,636	425	148	735	209	3,265	267
	August	3,695	482	30	668	242	3,297	266
	September	3,792	497	-6	788	236	3,255	266
	October	3,578	424	-107	711	195	2,990	270
	November	3,568	441	95	912	238	2,957	267
	December	3,123	479	361	883	257	2,823	⁴ 256
	Average	3,460	411	6	712	242	2,923	
1984	January	3,391	486	⁴ -177	561	207	2,931	253
	February	3,582	586	-256	751	225	2,935	261
	March	3,510	466	-218	530	258	2,969	268
	April	3,584	582	-207	627	268	3,063	274
	May	3,683	642	-118	775	257	3,175	277
	June	3,863	521	404	1,229	343	3,213	265
	July	3,866	567	278	1,034	238	3,438	257
	August*	3,855	561	24	648	172	3,621	256
	Average	3,667	551	-34	768	246	3,170	

¹ Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² Stocks are totals as of end of period.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ In January 1975, 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

* See Explanatory Note 9.6.

Note: Geographic coverage is the 50 United States and the District of Columbia.

Total may not equal sum of components due to independent rounding.

Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*.
2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual* and *PAD Districts Supply/Demand, Annual*, and unleaded gasoline data from *Monthly Petroleum Statistics Report*.
3. January 1981 through December 1983: EIA, *Petroleum Supply Annual*.
4. January 1984 through August 1984: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6).
5. September 1984: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).
6. January 1984 through September 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

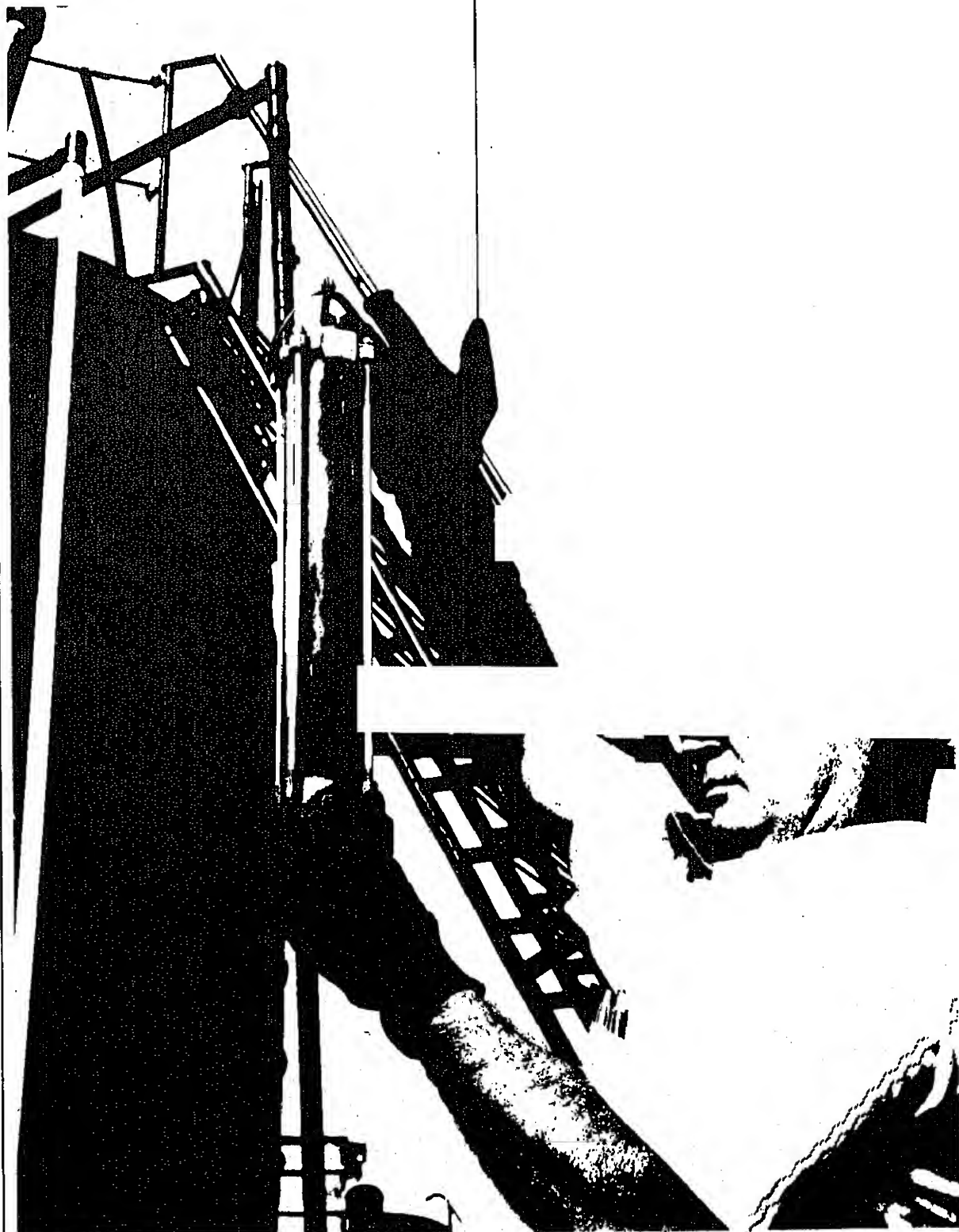


Table 1. U.S. Petroleum Balance, August 1984

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 53,478	1,725	E 427,772	1,753
(2) Lower 48 States	E 218,736	7,056	E 1,702,233	6,976
(3) Total U.S.	E 272,214	8,781	E 2,130,005	8,730
Net Imports				
(4) Imports (Gross Excluding SPR)	94,972	3,064	775,762	3,179
(5) SPR Imports	5,581	180	50,985	209
(6) Exports	5,886	190	45,219	185
(7) Imports (Net Including SPR)	94,666	3,054	781,528	3,203
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-5,563	-179	-50,378	-206
(9) Other Stock Withdrawal (+) or Addition (-)	13,307	429	8,257	34
(10) Product Supplied and Losses	-2,000	-65	-15,634	-64
(11) Unaccounted for 1	11,881	383	89,521	367
(12) Total Other Sources	17,625	569	31,766	130
(13) Crude Input to Refineries	384,505	12,403	2,943,299	12,063
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	51,543	1,683	395,053	1,619
(15) Net Imports 2	1,738	56	9,689	40
(16) Stock Withdrawal (+) or Addition (-) 2	421	14	-1,783	-7
(17) Total NGPL Supply	53,702	1,732	402,959	1,651
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	-116	-4	-98	0
(19) Imports	7,886	254	75,179	308
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,004	32	11,602	48
(21) Refinery Processing Gain 1	18,487	532	134,047	549
(22) Crude Oil Product Supplied	1,960	63	15,281	63
(23) Total Other Liquids	27,221	878	236,021	967
(23) = (18) through (22)				
(24) Total Production of Products 3	465,428	15,014	3,592,279	14,681
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross)	45,878	1,480	405,187	1,661
(26) Exports	16,729	540	123,529	506
(27) Imports (Net)	29,149	940	281,658	1,154
(28) Total New Supply of Products	494,577	15,954	3,863,937	15,836
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3	5,440	175	-2,978	-12
(30) Total Petroleum Products Supplied for Domestic Use	500,017	16,130	3,860,960	15,824
(30) = (28) + (29)				
(31) Finished Motor Gasoline	220,549	7,114	1,636,187	6,706
(32) Distillate Fuel Oil	79,823	2,575	703,007	2,881
(33) Residual Fuel Oil	39,232	1,266	353,602	1,449
(34) Liquefied Petroleum Gases	46,217	1,491	379,325	1,555
(35) Other 4	112,236	3,621	773,548	3,170
(36) Crude Oil	1,860	63	15,291	63
(37) Total Product Supplied	500,017	16,130	3,860,960	15,824
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	334,919	--	334,919	--
(39) Strategic Petroleum Reserve (SPR)	429,467	--	429,467	--
(40) Unfinished Oils	106,056	--	106,056	--
(41) Gasoline Blending Components 5	39,062	--	39,062	--
(42) Pentanes Plus	10,548	--	10,548	--
(43) Finished Refined Products 3	580,028	--	580,028	--
(44) Total Stocks	1,600,080	--	1,500,080	--

1 A balancing item.

2 Includes products in the pentanes plus category only.

3 For products included see Explanatory Note 9.7.

4 Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

5 Includes other hydrocarbons and alcohol.

E = Estimated.

-- Not Applicable.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 272,214	0	100,552	7,744	11,881	-40	384,505	5,886	1,950	764,386
Natural Gas Liquids and LRGs										
Pentanes Plus	51,436	12,188	6,578	-3,656	0	0	14,093	1,129	51,325	125,126
Liquefied Petroleum Gases	9,557	0	1,814	421	0	0	6,608	76	5,108	10,548
Ethane	41,879	12,188	4,765	-4,077	0	0	7,485	1,053	46,217	114,578
Propane	15,952	695	1,824	-101	0	0	67	152	17,951	20,772
Normal Butane	16,276	8,885	1,831	-3,178	0	0	104	576	23,134	62,245
Isobutane	6,487	2,654	786	-918	0	0	3,573	249	5,187	22,132
	3,164	-46	524	120	0	0	3,741	76	-55	9,429
Other Liquids										
Other Hydrocarbons and Alcohol	1,004	0	7,886	-116	0	0	13,479	0	-4,705	145,118
Unfinished Oils	1,004	0	0	30	0	0	1,034	0	0	328
Motor Gasoline Blending Components	0	0	5,360	-74	0	0	9,364	0	-4,078	106,056
Aviation Gasoline Blending Components	0	0	2,526	-151	0	0	3,006	0	-631	38,523
	0	0	0	79	0	0	75	0	4	211
Finished Petroleum Products										
Finished Motor Gasoline	107	416,376	41,114	9,517	0	0	0	15,676	451,437	465,450
Finished Leaded Motor Gasoline	1	199,505	7,529	13,558	0	0	0	44	220,549	186,580
Finished Unleaded Motor Gasoline	1	78,313	3,010	7,128	0	0	0	44	88,408	85,802
Finished Aviation Gasoline	0	121,192	4,519	6,430	0	0	0	0	132,141	100,778
Naphtha-Type Jet Fuel	0	944	68	108	0	0	0	0	1,120	2,403
Kerosene-Type Jet Fuel	0	7,532	646	-202	0	0	0	26	7,951	7,060
Kerosene	0	30,415	2,290	-1,879	0	0	0	52	30,774	38,582
Distillate Fuel Oil	0	2,713	247	-459	0	0	0	4	2,497	8,487
Residual Fuel Oil	42	82,964	8,155	-9,033	0	0	0	2,305	79,823	133,540
Naphtha < 400 Deg. for Petro. Feed. Use	0	25,035	17,729	4,533	0	0	0	8,065	39,232	44,672
Other Oils > 400 Deg. for Petro. Feed. Use	0	3,366	1,280	-36	0	0	0	189	4,420	1,877
Special Naphthas	0	6,946	0	-149	0	0	0	124	6,673	1,752
Lubricants	0	1,583	1,543	275	0	0	0	26	3,475	2,614
Waxes	0	5,132	331	-504	0	0	0	279	4,680	12,244
Petroleum Coke	0	437	32	21	0	0	0	22	468	553
Asphalt and Road Oil	0	12,434	0	134	0	0	0	4,459	8,109	4,769
Still Gas	0	18,061	975	3,053	0	0	0	51	22,038	18,348
Miscellaneous Products	0	17,629	0	0	0	0	0	0	17,629	0
	64	1,580	288	97	0	0	0	32	1,997	1,989
Total	324,751	428,564	155,131	13,489	11,881	40	412,077	22,691	500,017	1,500,080

¹ Unaccounted for crude oil is a balancing item.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - August 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 2,130,005	0	826,747	-42,121	89,521	343	2,943,299	45,219	15,291	764,386
Natural Gas Liquids and LRGs	393,740	92,261	57,806	-8,604	0	0	113,965	11,550	409,687	125,126
Pentanes Plus	70,812	0	10,338	-1,783	0	0	48,356	649	30,362	10,548
Liquefied Petroleum Gases	322,928	92,261	47,468	-6,821	0	0	65,609	10,902	379,325	114,578
Ethane	122,996	5,662	19,605	607	0	0	514	1,297	147,059	20,772
Propane	126,593	68,389	14,897	-6,965	0	0	936	6,307	195,671	62,245
Normal Butane	49,441	18,380	7,837	-1,743	0	0	35,366	2,649	35,900	22,132
Isobutane	23,898	-170	5,129	1,280	0	0	28,793	649	695	9,429
Other Liquids	11,602	0	75,179	-98	0	0	139,100	0	-52,417	145,118
Other Hydrocarbons and Alcohol	11,602	0	0	-43	0	0	11,559	0	0	328
Unfinished Oils	0	0	57,339	1,442	0	0	100,287	0	-41,506	106,056
Motor Gasoline Blending Components	0	0	17,834	-1,603	0	0	27,152	0	-10,921	38,523
Aviation Gasoline Blending Components	0	0	6	106	0	0	102	0	10	211
Finished Petroleum Products	1,313	3,238,150	357,719	3,843	0	0	0	112,627	3,488,398	465,450
Finished Motor Gasoline	497	1,568,562	69,428	-1,085	0	0	0	1,215	1,636,187	186,580
Finished Leaded Motor Gasoline	329	640,326	31,889	8,282	0	0	0	1,215	679,611	85,802
Finished Unleaded Motor Gasoline	168	928,236	37,539	-9,367	0	0	0	0	956,576	100,778
Finished Aviation Gasoline	0	6,249	535	-112	0	0	0	0	6,672	2,403
Naphtha-Type Jet Fuel	0	51,086	4,182	-847	0	0	0	200	54,221	7,060
Kerosene-Type Jet Fuel	0	222,351	12,187	-6,214	0	0	0	1,127	227,198	38,582
Kerosene	8	25,413	1,972	-627	0	0	0	23	26,744	8,487
Distillate Fuel Oil	319	645,978	61,931	6,862	0	0	0	12,083	703,007	133,540
Residual Fuel Oil	0	211,815	177,390	4,436	0	0	0	40,039	353,602	44,672
Naphtha < 400 Deg. for Petro. Feed. Use	0	31,566	7,628	-165	0	0	0	1,821	37,408	1,877
Other Oils > 400 Deg. for Petro. Feed. Use	0	64,213	0	5	0	0	0	3,469	60,749	1,752
Special Naphthas	-50	13,557	14,989	539	0	0	0	615	28,421	2,614
Lubricants	0	39,385	2,478	-169	0	0	0	3,802	37,892	12,244
Waxes	0	3,483	326	224	0	0	0	301	3,733	553
Petroleum Coke	0	107,586	0	712	0	0	0	47,725	60,573	4,769
Asphalt and Road Oil	0	93,935	1,680	444	0	0	0	148	95,910	18,348
Still Gas	0	138,280	0	0	0	0	0	0	138,280	0
Miscellaneous Products	539	14,691	2,992	-160	0	0	0	261	17,801	1,969
Total	2,536,660	3,330,411	1,317,451	-48,980	89,521	343	3,196,364	169,397	3,860,960	1,500,080

¹ Unaccounted for crude oil is a balancing item.

(S) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)									
E 8,781	0		3,244	250	383	1	12,403	190	63
Natural Gas Liquids and LRGs									
Pentanes Plus	1,659	393	212	-118	0	0	455	36	1,656
Liquefied Petroleum Gases	308	0	59	14	0	0	213	2	165
Ethane	1,351	393	154	-132	0	0	241	34	1,491
Propane	515	22	52	-3	0	0	2	5	579
Normal Butane	525	287	59	-103	0	0	3	19	746
Isobutane	209	86	25	-30	0	0	115	8	167
	102	-1	17	4	0	0	121	2	-2
Other Liquids									
Other Hydrocarbons and Alcohol	32	0	254	-4	0	0	435	0	-152
Unfinished Oils	32	0	0	1	0	0	33	0	0
Motor Gasoline Blending Components	0	0	173	-2	0	0	302	0	-132
Aviation Gasoline Blending Components	0	0	81	-5	0	0	97	0	-20
	0	0	0	3	0	0	2	0	(s)
Finished Petroleum Products									
3	13,431		1,326	307	0	0	0	506	14,562
(s)	6,436		243	437	0	0	0	1	7,114
(s)	2,526		97	230	0	0	0	1	2,852
Finished Unleaded Motor Gasoline	3,909		146	207	0	0	0	0	4,263
Finished Aviation Gasoline	30		2	3	0	0	0	0	36
Naphtha-Type Jet Fuel	243		21	-7	0	0	0	1	256
Kerosene-Type Jet Fuel	981		74	-61	0	0	0	2	993
Kerosene	88		8	-15	0	0	0	(s)	81
Distillate Fuel Oil	2,676		263	-291	0	0	0	74	2,575
Residual Fuel Oil	808		572	146	0	0	0	260	1,266
Naphtha < 400 Deg. for Petro. Feed. Use	109		41	-1	0	0	0	6	143
Other Oils > 400 Deg. for Petro. Feed. Use	224		0	-5	0	0	0	4	215
Special Naphthas	54		50	9	0	0	0	1	112
Lubricants	166		11	-16	0	0	0	9	151
Waxes	14		1	1	0	0	0	1	15
Petroleum Coke	401		0	4	0	0	0	144	262
Asphalt and Road Oil	583		31	98	0	0	0	2	711
Still Gas	0		0	0	0	0	0	0	569
Miscellaneous Products	51		9	3	0	0	0	1	64
2									
Total	10,476	13,825	5,036	435	383	1	13,293	732	16,130

1 Unaccounted for crude oil is a balancing item

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - August 1984
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,730	0	3,388	-173	367	1	12,063	185	63
Natural Gas Liquids and LRGs									
Pentanes Plus	1,614	378	237	-35	0	0	467	47	1,679
	290	0	42	-7	0	0	198	3	124
Liquefied Petroleum Gases	1,323	378	195	-28	0	0	269	45	1,555
Ethane	504	23	80	2	0	0	2	5	603
Propane	519	280	61	-29	0	0	4	26	802
Normal Butane	203	75	32	-7	0	0	145	11	147
Isobutane	98	-1	21	5	0	0	118	3	3
Other Liquids									
Other Hydrocarbons and Alcohol	48	0	308	(s)	0	0	570	0	-215
Unfinished Oils	48	0	0	(s)	0	0	47	0	0
Motor Gasoline Blending Components	0	0	235	6	0	0	411	0	-170
Aviation Gasoline Blending Components	0	0	73	-7	0	0	111	0	-45
	0	0	(s)	(s)	0	0	(s)	0	(s)
Finished Petroleum Products									
Finished Motor Gasoline	5	13,271	1,466	16	0	0	0	462	14,297
Finished Leaded Motor Gasoline	2	6,429	285	-4	0	0	0	5	6,706
Finished Unleaded Motor Gasoline	1	2,624	131	34	0	0	0	5	2,785
Finished Aviation Gasoline	0	3,804	154	-38	0	0	0	0	3,920
Naphtha-Type Jet Fuel	0	26	2	(s)	0	0	0	0	27
Kerosene-Type Jet Fuel	0	209	17	-3	0	0	0	1	222
Kerosene	0	911	50	-25	0	0	0	5	931
Distillate Fuel Oil	(s)	104	8	-3	0	0	0	(s)	110
Residual Fuel Oil	1	2,647	254	28	0	0	0	50	2,881
Naphtha < 400 Deg. for Petro. Feed, Use	0	868	727	18	0	0	0	164	1,449
Other Oils > 400 Deg. for Petro. Feed, Use	0	129	31	-1	0	0	0	7	153
Special Naphthas	0	263	0	(s)	0	0	0	14	249
Lubricants	(s)	56	61	2	0	0	0	3	116
Waxes	0	161	10	-1	0	0	0	16	155
Petroleum Coke	0	14	1	1	0	0	0	1	15
Asphalt and Road Oil	0	441	0	3	0	0	0	196	248
Still Gas	0	385	7	2	0	0	0	1	393
Miscellaneous Products	0	567	0	0	0	0	0	0	567
	2	60	12	-1	0	0	0	1	73
Total	10,396	13,649	5,399	-193	367	1	13,100	694	15,824

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

.. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 1,814	0	29,620	-349	3,150	3,822	0	38,057	0	0	16,118
Natural Gas Liquids and LRGs	911	1,482	1,454	591	0	2,781	0	226	38	6,955	3,523
Liquefied Petroleum Gases	779	1,482	590	593	0	2,781	0	187	38	6,000	3,480
Pentanes Plus	132	0	864	-2	0	0	0	39	0	955	43
Other Liquids	-22	0	2,284	773	0	1,327	0	4,751	0	-389	18,115
Other Hydrocarbons and Alcohol	-22	0	0	23	0	0	0	1	0	0	99
Unfinished Oils	0	0	931	997	0	1,206	0	4,675	0	-1,541	11,896
Motor Gasoline Blending Components	0	0	1,352	-247	0	121	0	75	0	1,151	6,120
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	0	43,716	31,752	5,441	0	63,185	0	0	1,005	143,089	155,138
Finished Motor Gasoline	0	19,842	5,969	6,495	0	39,909	0	0	4	72,212	59,830
Finished Leaded Motor Gasoline	0	6,294	2,384	2,493	0	13,258	0	0	4	24,425	26,384
Finished Unleaded Motor Gasoline	0	13,548	3,585	4,002	0	26,651	0	0	0	47,786	33,446
Naphtha-Type Jet Fuel	0	15	68	81	0	137	0	0	0	301	381
Kerosene-Type Jet Fuel	0	965	423	-169	0	274	0	0	0	1,493	1,007
Kerosene	0	1,572	1,811	-473	0	8,432	0	0	0	11,342	9,202
Distillate Fuel Oil	0	81	247	-170	0	98	0	0	4	253	3,627
Residual Fuel Oil	0	8,886	7,303	-3,915	0	12,794	0	0	210	24,857	49,181
Naphtha and Other Oils for Petro. Feed	0	3,949	14,574	2,809	0	435	0	0	212	21,555	21,884
Special Naphthas	0	380	13	-26	0	-6	0	0	57	304	288
Lubricants	0	45	142	133	0	369	0	0	4	686	601
Waxes	0	567	144	-181	0	574	0	0	68	1,035	3,401
Petroleum Coke	0	75	12	7	0	52	0	0	3	143	80
Asphalt and Road Oil	0	1,256	0	-227	0	0	0	0	395	634	892
Still Gas	0	3,952	819	963	0	127	0	0	32	5,829	4,470
Miscellaneous Products	0	1,931	0	0	0	0	0	0	0	1,931	0
	0	200	225	114	0	-10	0	0	15	514	294
Total	2,703	45,198	65,110	6,456	3,150	71,115	0	43,034	1,043	149,655	192,894

¹ Unaccounted for crude oil is a balancing item.

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels)

Commodity	Supply					Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 32,373	0	13,735	4,083	38,513	1,000	13	88,804	887	0
Natural Gas Liquids and LRGs	10,384	2,417	3,345	-1,794	0	3,143	0	4,588	541	12,366
Liquefied Petroleum Gases	8,884	2,417	3,345	-1,713	0	2,482	0	2,797	465	12,153
Pentanes Plus	1,500	0	0	-81	0	661	0	1,791	76	213
Other Liquids	148	0	464	-178	0	209	0	722	0	-79
Other Hydrocarbons and Alcohol	148	0	0	5	0	0	0	153	0	0
Unfinished Oils	0	0	464	-237	0	126	0	115	0	238
Motor Gasoline Blending Components	0	0	0	45	0	83	0	445	0	-317
Aviation Gasoline Blending Components	0	0	0	9	0	0	0	9	0	0
Finished Petroleum Products	16	95,112	809	-975	0	27,256	0	0	341	121,876
Finished Motor Gasoline	0	51,640	121	1,897	0	17,177	0	0	0	70,835
Finished Leaded Motor Gasoline	0	21,544	102	1,038	0	8,805	0	0	0	31,489
Finished Unleaded Motor Gasoline	0	30,096	19	859	0	8,372	0	0	0	39,346
Finished Aviation Gasoline	0	97	0	108	0	135	0	0	0	340
Naphtha-Type Jet Fuel	0	1,124	0	77	0	14	0	0	0	1,215
Kerosene-Type Jet Fuel	0	4,675	0	-515	0	2,166	0	0	0	6,326
Kerosene	0	750	0	-547	0	24	0	0	0	227
Distillate Fuel Oil	0	20,155	393	-3,101	0	7,180	0	0	0	24,627
Residual Fuel Oil	0	1,932	12	-117	0	-99	0	0	0	1,728
Naphtha and Other Oils for Petro. Feed	0	905	4	-1	0	25	0	0	42	891
Special Naphthas	0	412	172	77	0	194	0	0	2	854
Lubricants	0	874	9	-140	0	72	0	0	18	797
Waxes	0	40	5	3	0	45	0	0	1	92
Petroleum Coke	0	2,586	0	80	0	0	0	0	260	805
Asphalt and Road Oil	0	6,425	59	1,220	0	335	0	0	16	8,023
Still Gas	0	3,325	0	0	0	0	0	0	0	3,325
Miscellaneous Products	16	172	32	-16	0	-12	0	0	2	190
Total	42,921	97,529	18,353	1,136	38,513	31,608	13	94,114	1,769	134,164
										259,892

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 132,361	0	52,482	2,461	-25,039	11,974	3	174,195	0	21	584,696
Natural Gas Liquids and LRGs											
Liquefied Petroleum Gases	36,363	6,752	879	-1,187	0	-4,490	0	8,019	346	29,953	79,308
Pentanes Plus	29,782	6,752	14	-1,668	0	-4,046	0	3,597	346	26,891	72,668
	6,581	0	866	481	0	-444	0	4,422	0	3,062	6,640
Other Liquids											
Other Hydrocarbons and Alcohol	543	0	4,275	-1,894	0	-1,655	0	5,254	0	-3,985	67,509
Unfinished Oils	543	0	0	2	0	0	0	545	0	0	91
Motor Gasoline Blending Components	0	0	3,953	-2,002	0	-1,451	0	2,449	0	-1,949	51,305
Aviation Gasoline Blending Components	0	0	322	52	0	-204	0	2,206	0	-2,036	15,990
	0	0	0	54	0	0	0	54	0	0	123
Finished Petroleum Products											
Finished Motor Gasoline	88	187,341	6,559	-646	0	-93,456	0	0	4,088	95,797	121,377
Finished Leaded Motor Gasoline	1	88,835	846	1,944	0	-58,748	0	0	32	32,846	47,178
Finished Unleaded Motor Gasoline	1	34,003	230	1,567	0	-22,867	0	0	32	12,902	20,414
Finished Aviation Gasoline	0	54,832	616	377	0	-35,881	0	0	0	19,944	26,764
Naphtha-Type Jet Fuel	0	552	0	-73	0	-299	0	0	0	180	845
Kerosene-Type Jet Fuel	0	3,398	223	-10	0	-440	0	0	0	3,145	2,541
Kerosene	0	15,130	0	-908	0	-11,441	0	0	0	2,781	13,423
Distillate Fuel Oil	0	1,660	0	306	0	-122	0	0	0	1,844	2,315
Residual Fuel Oil	42	37,889	71	-2,423	0	-20,197	0	0	(s)	15,069	30,597
Naphtha and Other Oils for Petro. Feed	0	8,765	2,874	598	0	-336	0	0	313	10,109	9,210
Special Naphthas	0	8,706	1,263	-214	0	-19	0	0	1,791	9,539	2,979
Lubricants	0	1,122	1,160	69	0	-563	0	0	203	1,770	1,359
Waxes	0	3,365	52	-293	0	-754	0	0	18	2,238	5,501
Petroleum Coke	0	238	12	7	0	-97	0	0	14	146	377
Asphalt and Road Oil	0	4,979	0	282	0	0	0	0	1,547	3,714	1,244
Still Gas	0	3,818	28	140	0	-462	0	0	1	3,523	2,853
Miscellaneous Products	0	7,898	0	0	0	0	0	0	0	7,898	0
	45	986	30	-71	0	22	0	0	11	1,001	955
Total	169,355	194,093	64,175	-1,266	-25,039	-87,627	3	187,468	4,434	121,786	852,890

1 Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 17,611	0	805	-17	-4,369	0	0	14,026	0	4	13,088
Natural Gas Liquids and LRGs	2,682	135	394	-763	0	-1,434	0	462	0	553	2,054
Liquefied Petroleum Gases	1,820	136	310	-784	0	-1,217	0	351	0	-86	1,820
Pentanes Plus	862	0	84	21	0	-217	0	111	0	639	234
Other Liquids	0	0	0	370	0	0	0	113	0	257	4,063
Other Hydrocarbons and Alcohol	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oils	0	0	0	100	0	0	0	-118	0	218	2,458
Motor Gasoline Blending Components	0	0	0	270	0	0	0	231	0	39	1,605
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	3	14,695	357	1,531	0	-3	0	0	3	16,580	11,836
Finished Motor Gasoline	0	7,525	100	822	0	2	0	0	0	8,449	4,805
Finished Leaded Motor Gasoline	0	4,154	94	630	0	-136	0	0	0	4,742	2,909
Finished Unleaded Motor Gasoline	0	3,371	6	192	0	138	0	0	0	3,707	1,896
Finished Aviation Gasoline	0	38	0	4	0	27	0	0	0	69	48
Naphtha-Type Jet Fuel	0	522	0	19	0	-173	0	0	0	368	328
Kerosene-Type Jet Fuel	0	719	0	21	0	478	0	0	0	1,218	865
Kerosene	0	2	0	0	0	0	0	0	0	2	37
Distillate Fuel Oil	0	3,774	236	123	0	-337	0	0	0	3,796	3,511
Residual Fuel Oil	0	200	8	31	0	0	0	0	0	239	532
Naphtha and Other Oils for Petro. Feed.	0	3	0	-3	0	0	0	0	1	-1	5
Special Naphthas	0	0	(s)	3	0	0	0	0	0	3	7
Lubricants	0	29	0	1	0	0	0	0	1	29	67
Waxes	0	13	0	0	0	0	0	0	0	13	0
Petroleum Coke	0	235	0	25	0	0	0	0	0	260	159
Asphalt and Road Oil	0	1,065	13	493	0	0	0	0	1	1,570	1,451
Still Gas	0	516	0	0	0	0	0	0	0	516	0
Miscellaneous Products	3	54	0	-8	0	0	0	0	(s)	49	21
Total	20,296	14,831	1,556	1,121	-4,369	-1,437	0	14,601	3	17,394	31,041

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, August 1984
(Thousand Barrels)

Commodity	Supply					Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil ¹	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 88,055	0	3,930	1,566	-374	-16,796	24	69,423	4,999	1,935
Natural Gas Liquids and LRGs	1,096	1,401	505	-503	0	0	0	798	204	1,498
Liquefied Petroleum Gases	614	1,401	505	-505	0	0	0	553	204	1,259
Pentanes Plus	482	0	0	2	0	0	0	245	0	239
Other Liquids	335	0	863	813	0	119	0	2,639	0	-509
Other Hydrocarbons and Alcohol	335	0	0	0	0	0	0	335	0	0
Unfinished Oils	0	0	12	1,088	0	119	0	2,243	0	-1,044
Motor Gasoline Blending Components	0	0	851	-271	0	0	0	49	0	23,401
Aviation Gasoline Blending Components	0	0	0	16	0	0	0	12	0	531
Finished Petroleum Products	0	75,512	1,638	4,166	0	3,018	0	0	10,239	74,095
Finished Motor Gasoline	0	31,663	493	2,400	0	1,850	0	0	8	36,208
Finished Leaded Motor Gasoline	0	12,318	200	1,400	0	940	0	0	8	14,850
Finished Unleaded Motor Gasoline	0	19,345	293	1,000	0	720	0	0	0	21,358
Finished Aviation Gasoline	0	242	0	-12	0	0	0	0	0	230
Naphtha-Type Jet Fuel	0	1,523	0	-119	0	325	0	0	0	1,729
Kerosene-Type Jet Fuel	0	8,319	478	-4	0	365	0	0	52	9,106
Kerosene	0	220	0	-48	0	0	0	0	0	1,734
Distillate Fuel Oil	0	12,260	153	283	0	0	0	0	0	5,758
Residual Fuel Oil	0	10,189	261	1,212	0	560	0	0	1,782	301
Naphtha and Other Oils for Petro. Feed	0	318	0	59	0	0	0	0	6,061	11,474
Special Naphthas	0	104	68	-7	0	0	0	0	367	5,601
Lubricants	0	297	125	109	0	108	0	0	10	9,404
Waxes	0	71	3	4	0	0	0	0	3	162
Petroleum Coke	0	3,378	0	-26	0	0	0	0	59	580
Asphalt and Road Oil	0	2,801	56	237	0	0	0	0	4	1,122
Still Gas	0	3,959	0	0	0	0	0	0	2,257	74
Miscellaneous Products	0	168	2	78	0	0	0	0	(s)	1,095
Total	89,486	76,913	6,936	6,042	-374	-13,659	24	72,860	15,442	77,019
										163,363

¹ Unaccounted for crude oil is a balancing item.

(s) = Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Currently Available Month, 1 June 1984
(Thousand Barrels)

PAD District and State	Production		PAD District and State	Production	
	Total	Daily Average		Total	Daily Average
PAD District I			PAD District IV		
Florida	1,129	38	Colorado	E 2,334	E 78
New York	E 69	E 2	Montana	2,436	81
Pennsylvania	E 351	E 12	Utah	E 2,640	E 88
Virginia	E 6	E 0	Wyoming	E 9,798	E 327
West Virginia	302	10	Adjustment 2	-207	-7
Adjustment 2	-3	(s)	Total PAD District IV	E 17,001	E 567
Total PAD District I	E 1,854	E 62			
PAD District II			PAD District V		
Illinois	2,352	78	Alaska	1,793	60
Indiana	447	15	South Alaska	47,970	1,599
Kansas	6,375	213	North Slope	4,006	134
Kentucky	664	22	Adjustment for Alaska ²	53,769	1,792
Kentucky	2,579	86	Total Alaska	18	1
Michigan	E 18	E 1	Arizona		
Missouri	533	18	California	5,364	179
Nebraska	4,337	145	Central Coastal	21,169	706
North Dakota	E 1,233	E 41	East Central	15	1
Ohio	14,001	467	North	6,545	218
Oklahoma	114	4	South	33,093	1,103
South Dakota	75	3	Total California	123	4
Tennessee	-1,435	-48	Nevada	240	8
Adjustment 2	E 31,293	E 1,043	Adjustment for Arizona, California, and Nevada ²	87,243	2,908
Total PAD District II			Total PAD District V	E 262,290	E 8,743
PAD District III			United States Total		
Alabama	1,583	53			
Arkansas	E 1,548	E 52			
Louisiana	E 39,825	E 1,328			
Gulf Coast	2,681	89			
Rest of State	E 42,507	E 1,417			
Total Louisiana	2,855	95			
Mississippi					
New Mexico					
Northwestern	568	19			
Southeastern	5,856	195			
Total New Mexico	6,424	214			
Texas					
TRRC District 01	2,181	73			
TRRC District 02	3,269	109			
TRRC District 03	E 10,317	E 344			
TRRC District 04	2,460	82			
TRRC District 05	644	21			
TRRC District 06, excluding East Texas	3,500	117			
TRRC District 07B	2,923	97			
TRRC District 07C	2,921	97			
TRRC District 08	19,012	634			
TRRC District 08A	17,671	589			
TRRC District 09	3,303	110			
TRRC District 10	1,832	61			
East Texas	4,085	136			
Total Texas	74,118	2,471			
Adjustment 2	-4,136	-138			
Total PAD District III	E 124,899	E 4,163			

1 Includes the following offshore production (thousand barrels):

Alaska: State - 1,571;
California: Federal - 1,587, State - 3,311;
Louisiana: Federal - E27,045, State - 2,300;
Texas: Federal - E1,890, State - 152;
U.S. Total - E37,856

2 These adjustments are used to reconcile the national and PAD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

- Data not available.

E = Estimated.

See footnotes at end of table.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,¹ August 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	PAD Dist. V West Coast
Natural Gas Liquids	416	495	911	1	1,862	537	7,984	10,384	20,503	3,061	7,858	723	4,218	36,363	2,682	1,096
Pentanes Plus	75	57	132	0	234	135	1,131	1,500	3,892	209	1,367	225	888	6,581	862	482
Liquefied Petroleum Gases	341	438	779	1	1,628	402	6,853	8,884	16,611	2,852	6,491	498	3,330	29,782	1,820	514
Ethane	107	139	246	0	821	4	3,142	3,767	6,526	1,054	3,032	83	1,017	11,712	224	3
Propane	142	196	338	1	629	225	2,485	3,340	6,315	1,168	2,147	212	1,343	11,185	1,053	360
Normal Butane	72	76	148	0	210	146	786	1,142	2,708	398	679	144	668	4,597	419	181
Isobutane	20	27	47	0	168	27	440	635	1,062	232	633	59	302	2,288	124	70
Finished Petroleum Products	0	0	0	0	0	0	16	16	27	42	3	8	8	88	3	0
Finished Motor Gasoline	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	107
Finished Leaded Motor Gasoline	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0	42	0	0	0	42	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Production	416	495	911	1	1,862	537	8,000	10,400	20,530	3,103	7,861	731	4,226	36,451	2,685	1,096
																51,543

¹ Production represents quantity of natural gas processing plant output less input to fractionating facilities.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II						PAD District III				PAD		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Dist. IV Rocky Mt.		Dist. V West Coast
Crude Oil (including lease condensate)	35,358	2,699	38,057	1,814	56,588	9,225	21,177	88,804	16,217	85,628	64,442	5,719	2,189	174,195	14,026	69,423	384,505
Pentanes Plus	39	0	39	0	660	238	893	1,791	1,027	2,718	454	100	123	4,422	111	245	6,608
Liquefied Petroleum Gases	160	27	187	114	1,612	255	816	2,797	494	1,285	1,625	145	48	3,597	351	553	7,485
Ethane	0	0	0	0	10	0	0	10	0	0	57	0	0	57	0	0	67
Propane	0	0	0	0	67	0	0	67	1	3	33	0	0	37	0	0	104
Normal Butane	0	27	27	41	765	180	318	1,304	112	573	877	35	16	1,613	268	361	3,573
Isobutane	160	0	160	73	770	75	498	1,416	381	709	658	110	32	1,890	83	192	3,741
Other Liquids																	
Other Hydrocarbons and Alcohol	1	0	1	0	133	0	20	153	0	228	314	0	3	545	0	335	1,034
Unfinished Oil (net)	4,674	1	4,675	17	-623	275	446	115	-40	3,644	-1,314	155	3	2,449	-118	2,243	9,364
Motor Gasoline Blanding																	
Components (net)	83	-8	75	-6	844	26	-419	445	-111	978	1,272	20	47	2,206	231	49	3,006
Aviation Gasoline Blanding																	
Components (net)	0	0	0	0	9	0	0	9	0	-21	75	0	0	54	0	12	75
Total Input to Refineries	40,315	2,719	43,034	1,939	59,223	10,019	22,933	94,114	17,587	94,460	66,868	6,140	2,413	187,468	14,601	72,860	412,077
Crude Oil Distillation																	
Gross Input (daily average)	1,170	87	1,257	59	1,834	308	691	2,891	530	2,846	2,092	188	71	5,726	455	2,249	12,578
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	803	3,502	610	3,802	2,528	295	107	7,341	558	3,060	16,040
Operating Ratio (percent) ¹	83.3	49.9	79.6	88.7	78.7	101.3	86.0	82.6	86.9	74.8	82.8	63.6	66.5	78.0	81.6	73.5	78.4
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	1.06	.35	1.01	.64	.87	1.78	.61	.90	.63	.97	.80	1.41	.73	.88	.92	1.06	.93
API Gravity, Weighted Average	31.20	40.33	31.88	36.26	35.75	30.52	37.44	35.60	37.54	35.06	33.80	33.00	39.45	34.81	35.37	25.17	32.94
Operable Capacity (daily average)	1,404	174	1,578	66	2,329	304	803	3,502	610	3,802	2,528	295	107	7,341	558	3,060	16,040
Operating	1,302	110	1,412	66	2,042	301	740	3,148	554	3,465	2,362	247	107	6,736	530	2,875	14,700
Idle	102	64	166	0	287	3	63	353	56	337	165	48	0	606	28	186	1,339

¹ Represents gross input divided by operable capacity.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

**Table 14. Refinery Production of Petroleum Products by PAD District, August 1984
(Thousand Barrels)**

Commodity	PAD District I			PAD District II				PAD District III			Total	New Mexico	Total	PAD Dist. IV Rocky Mts.	PAD Dist. V West Coast	United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill.	Ky.	Minn., Daks.	Wisc., Kans., Mo.	Texas Inland	Texas Gulf Coast							La. Gulf Coast	No. La., Ark.
Liquefied Refinery Gases	1,454	28	1,482	36	1,765	218	398	2,417	49	3,062	3,471	67	103	6,752	1,401	12,188		
For Petrochemical Feedstock Use	448	0	448	0	220	0	52	272	34	1,385	2,120	8	0	3,548	10	4,415		
For Other Uses	1,006	28	1,034	36	1,545	218	346	2,145	15	1,676	1,351	59	103	3,204	1,264	7,773		
Ethane	14	0	14	0	0	0	0	14	0	0	0	0	0	0	0	695		
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
For Other Uses	14	0	14	0	0	0	0	14	0	0	0	0	0	0	0	0		
Propane	1,124	28	1,152	36	1,714	195	507	2,417	202	2,383	1,427	52	52	4,116	1,020	8,895		
For Petrochemical Feedstock Use	370	0	370	0	201	0	52	253	34	1,074	267	0	0	1,375	127	2,125		
For Other Uses	754	28	782	36	1,513	195	455	2,199	168	1,309	1,160	52	52	2,741	893	6,760		
Normal Butane	316	0	316	0	32	9	-109	-68	-153	102	2,027	15	51	2,042	381	2,654		
For Petrochemical Feedstock Use	78	0	78	0	0	0	0	0	0	64	1,852	8	0	1,924	2	2,014		
For Other Uses	238	0	238	0	32	9	-109	-68	-153	38	175	7	51	118	18	640		
Isobutane for Petro. Feed. Use	0	0	0	0	19	0	0	19	0	-73	0	0	0	-73	0	-46		
Finished Motor Gasoline	18,768	1,074	19,842	1,075	33,181	5,030	12,354	51,640	9,230	44,168	32,465	1,865	1,107	88,835	7,525	31,663		
Finished Leaded Motor Gasoline	5,858	436	6,294	452	12,955	2,483	6,254	21,544	4,502	15,323	12,788	826	564	34,003	4,154	19,505		
Finished Unleaded Motor Gasoline	12,910	638	13,548	623	20,826	2,547	6,100	30,096	4,728	28,845	19,677	1,039	543	54,832	3,371	78,313		
Finished Aviation Gasoline	15	0	15	0	69	0	28	97	150	263	139	0	0	552	38	121,192		
Naphtha-Type Jet Fuel	940	25	965	60	611	163	290	1,124	1,088	1,170	594	174	372	3,398	522	7,532		
Kerosene-Type Jet Fuel	1,572	0	1,572	18	3,185	599	873	4,675	818	6,522	7,667	7	116	15,130	719	30,415		
Kerosene	13	68	81	102	495	-10	163	750	15	937	750	27	-69	1,660	2	2,713		
Distillate Fuel Oil	8,100	786	8,886	412	11,735	2,091	5,917	20,155	3,978	18,668	12,779	1,843	621	37,889	3,774	12,260		
Residual Fuel Oil	3,904	45	3,949	75	1,379	198	280	1,932	755	5,099	2,659	243	9	8,765	200	82,964		
Naphtha < 400 Deg. For Petro. Feed. Use	373	0	373	0	605	0	106	711	114	1,960	70	17	0	2,161	0	25,035		
Other Oils > 400 Deg. For Petro. Feed. Use	7	0	7	0	194	0	233	412	104	4,309	2,133	133	0	6,545	3	3,365		
Special Naphthas	10	35	45	0	179	0	378	874	13	2,198	678	359	117	3,365	29	5,132		
Lubricants	274	293	567	0	496	0	31	40	99	99	73	57	0	238	13	437		
Waxes	0	75	75	0	9	0	31	40	99	99	73	57	0	238	13	437		
Petroleum Coke	1,238	18	1,256	27	1,639	264	656	2,586	296	2,655	1,939	77	12	4,979	235	3,378		
Marketable	450	0	450	0	720	140	446	1,306	64	1,267	1,221	43	0	2,595	95	2,566		
Catalyst	788	18	806	27	919	124	210	1,280	232	1,398	718	34	12	2,384	140	812		
Asphalt and Road Oil	3,837	115	3,952	144	3,869	1,522	890	6,425	587	677	1,446	1,108	0	3,818	1,065	5,422		
Still Gas	1,827	104	1,931	58	2,229	289	749	3,325	476	4,603	2,569	173	57	7,898	516	18,061		
For Petrochemical Feedstock Use	209	0	209	0	1	0	0	1	2	433	243	0	0	678	1	154		
For Other Uses	1,618	104	1,722	58	2,228	289	749	3,324	474	4,170	2,346	173	57	7,220	515	16,576		
Miscellaneous Products	140	60	200	3	77	23	69	172	-6	575	376	41	0	986	54	1,580		
Fuel Use	10	28	38	0	0	0	0	0	0	-17	313	2	0	298	11	362		
Non-Fuel Use	130	32	162	3	77	23	69	172	-6	592	63	39	0	688	43	1,218		
Total Production	42,472	2,726	45,198	2,010	61,717	10,387	23,415	97,529	17,779	97,676	70,002	6,191	2,445	194,093	14,831	428,564		
Processing Gain(-) or Loss(+)	-2,157	-7	-2,164	-71	-2,494	-368	-482	-3,415	-192	-3,216	-3,134	-51	-32	-6,625	-230	-16,487		

1 Represents the arithmetic difference between input and output.
Notes: See page 10 for details.

¹ Represents the arithmetic difference between input and output
Note: See Explanatory Note 2.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,¹ August 1984

Commodity	PAD District I			PAD District II					PAD District III				PAD		United States		
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okl., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		Dist. IV Rocky Mt.	Dist. V West Coast
Finished Motor Gasoline ²	46.2	39.1	45.7	52.8	53.5	47.5	51.1	52.2	48.3	43.6	45.6	27.2	40.4	44.2	49.1	42.5	46.0
Finished Aviation Gasolines ³	.0	.0	.0	.0	.1	.0	.1	.1	.9	.3	.1	.0	.0	.3	.3	.3	.2
Liquefied Refinery Gases	3.6	1.0	3.5	2.0	3.2	2.3	1.8	2.7	.3	3.4	5.5	1.1	4.7	3.8	1.0	2.0	3.1
Naphtha-Type Jet Fuel	2.3	.9	2.3	3.3	1.1	1.7	1.3	1.3	6.7	1.3	.9	3.0	17.0	1.9	3.8	2.1	1.9
Kerosene-Type Jet Fuel	3.9	0	3.7	1.0	5.7	6.3	4.0	5.3	5.1	7.3	12.1	.1	5.3	8.6	5.2	11.6	7.7
Kerosene	.0	2.5	.2	5.6	.9	-.1	.8	.8	.1	1.0	1.2	.5	-3.1	.9	.0	.3	.7
Distillate Fuel Oil	20.2	29.1	20.8	22.5	21.0	22.0	27.4	22.7	24.6	20.9	20.2	31.4	28.3	21.4	27.1	17.1	21.1
Residual Fuel Oil	9.8	1.7	9.2	4.1	2.5	2.1	1.3	2.2	4.7	5.7	4.2	4.1	.4	5.0	1.4	14.2	6.4
Naphtha < 400 Deg. F. Petro. Feed. Use	.9	0	.9	0	1.1	0	.5	.8	.7	2.2	.1	.3	0	1.2	0	.2	.9
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.3	0	0	.2	.6	4.8	3.4	0	0	3.7	.0	.3	1.8
Special Naphthas	.0	1.3	.1	0	.3	0	1.1	.5	.6	.8	.3	2.3	0	.6	.0	.1	.4
Lubricants	.7	10.9	1.3	0	.9	0	1.7	1.0	.1	2.5	1.1	6.1	5.3	1.9	.2	.4	1.3
Waxes	.0	2.8	.2	0	.0	0	.1	.0	.1	.1	.1	1.0	0	.1	.1	.1	.1
Petroleum Coke	3.1	.7	2.9	1.5	2.9	2.8	3.0	2.9	1.8	3.0	3.1	1.3	.5	2.8	1.7	4.7	3.2
Asphalt and Road Oil	9.6	4.3	9.2	7.9	6.9	16.0	4.1	7.2	3.6	.8	2.3	18.9	.0	2.2	7.7	3.9	4.6
Still Gas	4.6	3.9	4.5	3.2	4.0	3.0	3.5	3.7	2.9	5.2	4.1	2.9	2.6	4.5	3.7	5.5	4.5
Miscellaneous Products	.3	2.2	.5	.2	.1	.2	.3	.2	.0	.6	.6	.7	0	.6	.4	.2	.4
Processing Gain(-) or Loss(+) ⁴	-5.4	-3	-5.1	-3.9	-4.5	-3.9	-2.2	-3.8	-1.2	-3.6	-5.0	-9	-1.5	-3.8	-1.7	-5.7	-4.2

¹ Based on crude oil input and net reruns of unfinished oils.² Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.³ Based on finished aviation gasoline output plus net output of aviation gasoline blending components.⁴ Represents the difference between input and production.

Note: Total may not equal sum of components due to independent rounding.

Note: See Explanatory 2.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	29,620	13,735	52,462	805	3,930	100,552
Natural Gas Liquids						
Pentanes Plus	1,454	3,345	879	394	505	6,578
Liquefied Petroleum Gases	864	0	866	84	0	1,814
Ethane	590	3,345	14	310	505	4,765
Propane	0	1,624	0	0	0	1,624
Normal Butane	437	1,189	11	151	43	1,831
Isobutane	92	320	2	96	277	786
	51	213	1	64	185	524
Other Liquids ¹	2,284	464	4,275	0	863	7,886
Unfinished Oils ¹	931	464	3,953	0	12	5,360
Motor Gasoline Blending Components	1,352	0	322	0	851	2,526
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	31,752	809	6,559	357	1,638	41,114
Finished Motor Gasoline	5,869	121	846	100	483	7,529
Finished Leaded Motor Gasoline	2,384	102	230	94	200	3,010
Finished Unleaded Motor Gasoline	3,585	19	616	6	293	4,519
Finished Aviation Gasoline	68	0	0	0	0	68
Naphtha-Type Jet Fuel	423	0	223	0	0	646
Kerosene-Type Jet Fuel	1,811	0	0	0	0	2,290
Bonded Aircraft Fuel	0	0	0	0	478	0
Other	1,811	0	0	0	0	2,290
Kerosene	247	0	0	0	478	247
Distillate Fuel Oil	7,303	393	71	0	153	8,155
Bonded Ships Bunkers	0	0	0	236	0	0
Other	7,303	393	71	0	153	8,155
Residual Fuel Oil	14,574	12	2,874	236	261	17,729
Bonded Ships Bunkers	0	0	0	8	0	0
Other	14,574	12	2,874	0	261	17,729
Naphtha < 400 Deg. for Petro. Feed. Use	13	4	1,263	0	0	1,280
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	142	172	1,160	(s)	68	1,543
Lubricants	144	9	52	0	125	331
Waxes	12	5	12	0	3	32
Asphalt and Road Oil	819	59	28	13	56	975
Miscellaneous Products	225	32	30	0	2	288
Total Imports	65,110	18,353	64,175	1,556	6,936	156,131

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District, January - August 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ^{1 2}	215,753	124,383	431,693	7,644	47,274	826,747
Natural Gas Liquids	11,040	34,198	4,560	3,927	4,081	57,806
Pentanes plus	7,376	0	1,597	855	510	10,338
Liquefied Petroleum Gases	3,663	34,198	2,964	3,072	3,571	47,468
Ethane	1	19,604	0	0	0	19,605
Propane	2,201	9,248	1,345	1,561	542	14,897
Normal Butane	877	3,207	1,029	907	1,817	7,837
Isobutane	584	2,138	590	604	1,212	5,129
Other Liquids ¹	25,438	2,924	36,880	0	9,937	75,179
Unfinished Oils ¹	15,427	2,849	34,794	0	4,270	57,339
Motor Gasoline Blending Components	10,011	75	2,086	0	5,662	17,834
Aviation Gasoline Blending Components	0	0	0	0	6	6
Finished Petroleum Products	292,784	8,763	42,119	1,667	12,386	357,719
Finished Motor Gasoline	58,246	842	5,320	510	4,509	69,428
Finished Leaded Motor Gasoline	26,398	541	3,030	485	1,435	31,889
Finished Unleaded Motor Gasoline	31,848	302	2,290	25	3,074	37,539
Finished Aviation Gasoline	526	0	0	2	7	535
Naphtha-Type Jet Fuel	2,286	0	1,888	0	8	4,182
Kerosene-Type Jet Fuel	11,005	0	0	0	1,182	12,187
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	11,005	0	0	0	1,182	12,187
Kerosene	1,966	0	6	0	(s)	1,972
Distillate Fuel Oil	56,368	2,033	1,028	1,016	1,466	61,931
Bonded Ships Bunkers	0	0	0	0	0	0
Other	56,368	2,033	1,028	1,016	1,466	61,931
Residual Fuel Oil	155,038	1,578	17,298	108	3,368	177,390
Bonded Ships Bunkers	0	0	0	0	0	0
Other	155,038	1,578	17,298	108	3,368	177,390
Naphtha < 400 Deg. for Petro. Feed. Use	715	104	6,810	0	0	7,628
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	2,425	3,665	7,774	3	1,123	14,989
Lubricants	1,501	86	279	1	611	2,478
Waxes	104	43	155	0	25	326
Asphalt and Road Oil	1,422	75	100	24	59	1,680
Miscellaneous Products	1,162	338	1,461	2	28	2,992
Total Imports	545,014	170,268	515,252	13,237	73,679	1,317,451

¹ Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.

² Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, August 1984
(Thousand Barrels)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	6,529	54	0	0	0	0	0	1,474	1,752	663	2,057	6,000	12,529	404
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kuwait	648	0	0	0	0	0	0	0	0	0	0	0	648	21
Qatar	1,497	0	0	0	0	0	0	0	0	0	0	0	1,497	48
Saudi Arabia	13,376	188	0	0	0	0	0	0	0	0	0	188	13,564	438
United Arab Emirates	2,255	0	0	0	0	0	0	0	0	0	292	292	2,548	82
Subtotal Arab OPEC	24,306	242	0	0	0	0	0	1,474	1,752	663	2,349	6,481	30,787	993
Other OPEC														
Ecuador	1,806	0	0	0	0	0	0	0	533	0	0	533	2,340	75
Gabon	2,204	0	0	0	0	0	0	0	0	0	0	0	2,204	71
Indonesia	7,777	0	0	0	90	28	0	63	755	0	0	936	8,713	281
Nigeria	3,360	0	0	0	0	0	0	0	163	0	0	163	3,523	114
Venezuela	6,533	0	929	118	1,538	1,328	0	2,334	1,773	0	533	8,552	15,085	487
Subtotal Other OPEC	21,680	0	929	118	1,628	1,355	0	2,397	3,224	0	533	10,184	31,864	1,028
Other														
Angola	3,439	0	0	0	0	0	0	0	241	0	0	241	3,680	119
Australia	0	331	0	0	35	11	0	41	115	0	0	533	533	17
Bahamas	0	0	488	0	0	0	0	720	546	0	0	1,754	1,754	57
Brazil	0	0	0	0	946	0	0	0	646	58	(s)	1,649	1,649	53
Canada	9,225	4,059	473	0	840	208	7	974	524	257	501	7,842	17,067	551
Congo	1,100	0	0	0	0	0	0	0	201	0	0	201	1,302	42
Egypt	351	0	0	0	0	0	0	0	0	0	0	0	351	11
France	0	0	0	0	197	0	0	0	0	0	(s)	198	198	6
Ghana	0	0	0	0	0	0	0	0	131	0	0	131	131	4
Mexico	17,368	24	1,403	0	252	0	0	1	25	0	156	1,868	19,237	621
Netherlands	0	0	0	0	210	0	0	416	0	4	0	634	634	20
Netherlands Antilles	0	853	0	0	355	198	0	270	4,541	0	146	6,363	6,363	205
Norway	2,653	0	0	0	0	0	0	0	0	0	0	0	2,653	86
Oman	560	0	0	0	0	0	0	0	0	0	0	0	560	18
People's Republic of China	616	0	0	1,016	174	0	0	0	0	0	30	1,221	1,837	59
Peru	0	0	0	0	0	223	0	0	0	0	0	223	223	7
Puerto Rico	0	0	39	0	236	200	0	0	0	407	174	1,057	1,057	34
Romania	0	0	0	1,180	246	0	0	0	0	0	763	2,189	2,189	71
Spain	0	0	0	0	200	0	0	0	0	10	11	221	221	7
Trinidad and Tobago	2,824	0	0	0	0	0	0	221	0	0	0	221	3,044	98
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	11,699	108	0	0	217	0	0	0	0	0	(s)	326	12,025	388
Virgin Islands	0	0	265	0	867	657	241	1,114	4,081	96	0	7,319	7,319	236
Zaire	805	0	0	0	0	0	0	0	0	0	0	0	805	26
Other Western Hemisphere	149	0	0	39	231	0	0	0	9	26	18	323	472	15
Other Eastern Hemisphere	3,777	(s)	911	172	896	85	0	528	1,693	14	101	4,400	8,177	264
Subtotal Other	54,566	4,522	4,432	2,408	5,902	1,580	247	4,284	12,753	880	1,906	38,914	93,480	3,015
Total Imports	100,552	4,765	5,360	2,526	7,529	2,936	247	8,155	17,729	1,543	4,788	55,578	156,131	5,036
PAD District 1														
Arab OPEC														
Algeria	1,634	54	0	0	0	0	0	1,474	1,432	0	225	3,185	4,819	155
Saudi Arabia	3,991	188	0	0	0	0	0	0	0	0	0	188	4,179	135

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, August 1984
(Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil- Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District I														
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Arab OPEC	5,625	242	0	0	0	0	0	1,474	1,432	0	225	3,373	8,998	290
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	533	0	0	533	533	17
Gabon	1,505	0	0	0	0	0	0	0	0	0	0	0	1,505	49
Indonesia	835	0	0	0	0	0	0	0	0	0	0	0	835	27
Nigeria	478	0	0	0	0	0	0	0	0	0	0	0	478	15
Venezuela	2,448	0	0	0	922	1,181	0	2,334	1,461	0	533	6,431	8,879	286
Subtotal Other OPEC	5,266	0	0	0	922	1,181	0	2,334	1,994	0	533	6,964	12,230	395
Other														
Angola	2,982	0	0	0	0	0	0	0	241	0	0	241	3,223	104
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	0	0	0	0	0	650	546	0	0	1,197	1,197	39
Brazil	0	0	0	0	715	0	0	0	644	0	(s)	1,360	1,360	44
Canada	1,049	240	4	0	593	0	7	319	498	23	293	1,976	3,025	98
Congo	0	0	0	0	0	0	0	0	201	0	0	201	201	6
Egypt	351	0	0	0	197	0	0	0	0	0	0	0	351	11
France	0	0	0	0	0	0	0	0	0	0	(s)	197	197	6
Ghana	0	0	0	0	0	0	0	0	131	0	0	131	131	4
Mexico	3,732	0	0	0	252	0	0	416	0	0	68	320	4,051	131
Netherlands	0	0	0	0	210	198	0	270	4,541	0	(s)	626	626	20
Netherlands Antilles	0	0	583	0	355	0	0	0	0	0	115	6,062	6,062	196
Norway	2,264	0	0	0	0	0	0	0	0	0	0	0	2,264	73
People's Republic of China	614	0	0	0	0	0	0	0	0	116	124	715	715	23
Puerto Rico	0	0	39	0	236	200	0	0	0	0	763	2,189	2,189	71
Romania	0	0	0	1,180	246	0	0	0	0	0	11	211	211	7
Spain	0	0	0	0	200	0	0	221	0	0	0	221	1,141	37
Trinidad and Tobago	920	0	0	0	217	0	0	0	0	0	(s)	326	6,001	194
United Kingdom	5,676	108	0	0	867	657	241	1,114	3,567	0	0	6,710	6,710	216
Virgin Islands	0	0	265	0	0	0	0	0	0	0	0	0	555	18
Zaire	555	0	0	0	0	0	0	0	0	0	0	0	555	18
Other Western Hemisphere	0	0	0	0	231	0	0	0	9	0	0	240	240	8
Other Eastern Hemisphere	586	(s)	41	172	729	0	0	504	769	4	12	2,230	2,816	91
Subtotal Other	18,729	348	931	1,352	5,048	1,054	247	3,494	11,148	142	1,387	25,153	43,882	1,416
Total Imports	29,620	590	931	1,352	5,969	2,235	247	7,303	14,574	142	2,145	35,490	65,110	2,100
PAD District II														
Arab OPEC														
Algeria	1,235	0	0	0	0	0	0	0	0	0	0	0	1,235	40
United Arab Emirates	597	0	0	0	0	0	0	0	0	0	0	0	597	19
Subtotal Arab OPEC	1,832	0	0	0	0	0	0	0	0	0	0	0	1,832	59
Other OPEC														
Ecuador	317	0	0	0	0	0	0	0	0	0	0	0	317	10
Nigeria	937	0	0	0	0	0	0	0	0	0	0	0	937	30
Subtotal Other OPEC	1,254	0	0	0	0	0	0	0	0	0	0	0	1,254	40

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, August 1984
(Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District II														
Other														
Canada	7,173	3,345	464	0	121	0	0	393	12	172	110	4,618	11,791	380
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	3,281	0	0	0	0	0	0	0	0	0	0	0	3,281	106
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	194	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	194	6
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	10,648	3,345	464	0	121	0	0	393	12	172	110	4,618	15,266	492
Total Imports	13,735	3,345	464	0	121	0	0	393	12	172	110	4,618	18,353	592
PAD District III														
Arab OPEC														
Algeria	3,660	0	0	0	0	0	0	0	320	663	1,832	2,815	6,475	209
Iraq	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kuwait	648	0	0	0	0	0	0	0	0	0	0	0	648	21
Qatar	1,497	0	0	0	0	0	0	0	0	0	0	0	1,497	48
Saudi Arabia	9,385	0	0	0	0	0	0	0	0	0	0	0	9,385	303
United Arab Emirates	1,658	0	0	0	0	0	0	0	0	0	292	292	1,951	63
Subtotal Arab OPEC	16,849	0	0	0	0	0	0	0	320	663	2,124	3,107	19,956	644
Other OPEC														
Ecuador	1,489	0	0	0	0	0	0	0	0	0	0	0	1,489	48
Gabon	699	0	0	0	0	0	0	0	0	0	0	0	699	23
Indonesia	3,421	0	0	0	0	0	0	0	662	0	0	662	4,083	132
Nigeria	1,945	0	0	0	0	0	0	0	163	0	0	163	2,108	68
Venezuela	3,873	0	929	118	616	0	0	0	312	0	0	1,974	5,848	189
Subtotal Other OPEC	11,428	0	929	118	616	0	0	0	1,137	0	0	2,799	14,227	459
Other														
Angola	456	0	0	0	0	0	0	0	0	0	0	0	456	15
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	488	0	0	0	0	70	0	0	0	558	558	18
Brazil	0	0	0	0	230	0	0	0	1	58	0	289	289	9
Canada	0	0	0	0	0	0	0	0	0	40	0	40	40	1
Congo	1,100	0	0	0	0	0	0	0	0	0	0	0	1,100	35
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	10,356	14	1,403	0	0	0	0	1	20	7	29	1,475	11,831	382
Netherlands	0	0	0	0	0	0	0	0	0	4	3	8	8	0
Netherlands Antilles	0	0	263	0	0	0	0	0	0	0	0	263	263	8
Other														
Norway	389	0	0	0	0	0	0	0	0	0	0	0	389	13
Oman	560	0	0	0	0	0	0	0	0	0	0	0	560	18
People's Republic of China	2	0	0	165	0	0	0	0	0	0	30	195	198	6
Peru	0	0	0	0	0	223	0	0	0	0	0	223	223	7
Puerto Rico	0	0	0	0	0	0	0	0	0	291	0	291	291	9
Romania	0	0	0	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 18. Imports of Crude Oil and Petroleum Products by Source and PAD District, August 1984
(Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District III														
Spain	0	0	0	0	0	0	0	0	0	10	0	10	10	(s)
Trinidad and Tobago	1,709	0	0	0	0	0	0	0	0	0	0	0	1,709	55
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	6,024	0	0	0	0	0	0	0	0	0	(s)	(s)	6,024	194
Virgin Islands	0	0	0	0	0	0	0	0	513	50	0	563	563	18
Zaire	249	0	0	0	0	0	0	0	0	0	0	0	249	8
Other Western Hemisphere	149	0	0	39	0	0	0	0	0	26	18	83	232	7
Other Eastern Hemisphere	3,191	0	870	0	0	0	0	0	883	10	44	1,807	4,988	161
Subtotal Other	24,185	14	3,024	204	230	223	0	71	1,417	497	126	5,806	29,992	967
Total Imports	52,462	14	3,953	322	846	223	0	71	2,874	1,160	2,250	11,713	64,175	2,070
PAD District IV														
Other	805	310	0	0	100	0	0	236	8	(s)	97	751	1,556	50
Canada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	805	310	0	0	100	0	0	236	8	(s)	97	751	1,556	50
Total Imports	805	310	0	0	100	0	0	236	8	(s)	97	751	1,556	50
PAD District V														
Other OPEC	3,521	0	0	0	90	28	0	63	94	0	0	274	3,795	122
Indonesia	211	0	0	0	0	147	0	0	0	0	0	147	358	12
Venezuela	3,732	0	0	0	90	175	0	63	94	0	0	421	4,153	134
Subtotal Other OPEC	0	0	0	0	35	11	0	41	115	0	0	533	533	17
Other	0	331	0	0	0	0	0	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	198	164	5	0	26	208	0	26	6	22	1	457	655	21
Canada	0	10	0	0	0	0	0	(s)	5	0	59	74	74	2
Mexico	0	0	0	0	0	0	0	0	0	0	31	38	38	1
Netherlands Antilles	0	0	7	0	0	0	0	0	0	0	0	1,025	1,025	33
People's Republic of China	0	0	0	851	174	0	0	0	0	0	0	50	50	2
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	46	0	46	46	1
Other	0	(s)	0	0	168	85	0	24	42	0	45	363	363	12
Other Eastern Hemisphere	198	505	12	851	403	304	0	90	167	68	186	2,586	2,784	90
Subtotal Other	3,930	505	12	851	493	478	0	153	261	68	186	3,006	6,936	224
Total Imports	3,930	505	12	851	493	478	0	153	261	68	186	3,006	6,936	224

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, aviation blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

* Less than 500 barrels or less than 500 barrels per day.

Total may not equal sum of components due to independent rounding.

Explanatory Notes on Data Collection and Estimation.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - August 1984
(Thousand Barrels)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts														
Arab OPEC														
Algeria	48,700	235	598	0	434	327	0	5,300	15,232	2,967	6,447	31,541	80,240	329
Iraq	2,179	0	0	0	0	0	0	0	0	0	0	0	2,179	9
Kuwait	4,751	0	0	0	0	0	0	0	3,885	0	0	3,885	8,436	35
Qatar	1,497	0	0	0	0	0	0	0	0	0	0	0	1,497	6
Saudi Arabia	89,345	793	1,119	0	0	0	0	0	1,013	0	(s)	2,925	92,271	378
United Arab Emirates	19,774	0	1,049	993	0	221	0	0	1,745	0	1,879	5,887	25,661	105
Subtotal Arab OPEC	166,248	1,027	2,766	993	434	548	0	5,300	21,676	2,967	8,326	44,037	210,285	862
Other OPEC														
Ecuador	12,330	0	0	0	0	0	0	0	2,403	0	0	2,403	14,732	60
Gabon	14,007	0	0	0	0	0	0	0	246	60	0	306	14,314	59
Indonesia	88,572	1,356	2,035	0	1,156	167	0	331	5,335	696	73	11,149	79,721	327
Iran	2,071	0	0	0	0	0	0	0	0	0	0	0	2,071	8
Nigeria	55,260	0	1,582	0	0	0	0	53	253	0	248	2,136	57,396	235
Venezuela	60,915	0	4,156	790	14,267	4,021	0	14,296	27,638	68	1,305	66,560	127,475	522
Subtotal Other OPEC	213,155	1,356	7,773	790	15,443	4,188	0	14,680	35,875	824	1,625	82,553	295,709	1,212
Other														
Angola	21,419	0	0	0	0	0	0	0	809	0	0	809	22,228	91
Australia	3,572	427	0	0	440	76	0	164	1,493	0	208	2,807	6,379	26
Bahamas	0	0	6,219	0	0	659	69	4,255	5,295	0	2,352	18,849	18,849	77
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	1
Brazil	2	0	0	0	5,643	0	0	0	7,167	260	24	13,094	13,096	54
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	80,808	42,347	2,628	75	4,279	216	43	8,182	6,435	4,273	3,255	71,733	152,546	625
Congo	8,942	0	0	0	0	0	0	0	1,506	0	0	1,506	10,448	43
Egypt	2,641	0	0	0	0	0	0	0	0	0	0	0	2,641	11
France	0	(s)	(s)	0	573	0	(s)	0	299	(s)	12	885	885	4
Ghana	0	0	0	0	0	0	0	0	250	0	0	250	250	1
Liberia	0	0	0	0	0	0	0	0	1,882	0	0	1,882	1,882	8
Malaysia	0	0	125	0	158	7	0	20	99	0	0	409	409	2
Mexico	158,807	1,629	8,255	3,511	691	244	0	1,096	1,055	300	642	17,423	176,229	722
Netherlands	1,045	(s)	0	378	5,837	196	0	6,858	1,418	340	769	15,797	16,841	69
Netherlands Antilles	0	28	8,447	426	6,186	933	0	2,852	31,846	0	301	50,818	50,818	208
Norway	27,423	(s)	0	0	0	451	0	366	0	0	0	817	28,240	116
Oman	2,109	0	0	0	0	0	0	0	1,239	0	0	1,239	3,347	14
People's Republic of China	2,958	0	494	5,719	773	0	0	0	4,597	0	33	7,366	10,324	42
Peru	224	0	557	0	0	223	0	0	0	347	0	5,376	5,600	23
Puerto Rico	0	0	1,248	0	2,951	453	0	1,011	0	3,045	1,462	10,171	10,171	42
Romania	0	0	252	4,074	1,571	0	0	0	389	423	3,634	10,343	10,343	42
Spain	0	0	218	0	1,167	1,016	0	123	782	10	29	3,344	3,344	14
Trinidad and Tobago	19,180	0	13	0	0	0	0	221	1,731	7	16	1,988	21,168	87
Tunisia	4	0	0	0	0	0	0	0	0	0	0	0	0	(s)
United Kingdom	81,981	526	737	370	2,618	325	0	163	655	156	714	6,264	88,245	362
Virgin Islands	0	0	8,773	0	11,983	5,236	1,794	12,961	32,913	402	339	74,401	74,401	305
Zaire	7,537	0	0	0	0	0	0	0	0	0	0	0	7,537	31
Other														
Other Western Hemisphere	721	127	1,699	39	231	0	6	361	6,852	229	162	9,706	10,427	43

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - August 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
All PAD Districts														
Other Eastern Hemisphere	27,711	2	7,135	1,460	8,448	1,601	60	3,517	11,128	1,407	2,073	36,832	64,543	265
Subtotal Other	447,344	45,085	46,800	16,051	53,551	11,634	1,972	41,951	119,839	11,198	16,026	364,108	811,457	3,326
Total Imports	826,747	47,468	57,339	17,834	69,428	16,369	1,972	61,931	177,390	14,989	25,977	490,698	1,317,451	5,399
PAD District 1														
Arab OPEC														
Algeria	12,529	235	0	0	434	327	0	5,250	14,236	218	1,495	22,195	34,724	142
Kuwait	253	0	0	0	0	0	0	0	0	0	0	0	253	1
Saudi Arabia	19,667	793	867	0	0	0	0	0	0	0	(s)	1,660	21,327	87
United Arab Emirates	436	0	0	993	0	0	0	0	434	0	1,338	2,765	3,201	13
Subtotal Arab OPEC	32,885	1,027	867	993	434	327	0	5,250	14,670	218	2,833	26,619	59,504	244
Other OPEC														
Ecuador	302	0	0	0	0	0	0	0	2,403	0	0	2,403	2,705	11
Gabon	4,458	0	0	0	0	0	0	0	246	60	0	306	4,764	20
Indonesia	16,730	0	228	0	0	0	0	0	1,989	0	0	1,617	18,347	75
Nigeria	15,816	0	0	0	0	0	0	50	90	0	0	140	15,956	65
Venezuela	17,713	0	0	0	11,751	3,618	0	14,296	25,829	0	1,138	56,632	74,345	305
Subtotal Other OPEC	55,019	0	228	0	11,751	3,618	0	14,346	29,957	60	1,138	61,098	116,117	476
Other														
Anglia	13,253	0	0	0	0	0	0	0	809	0	0	809	14,062	58
Australia	0	0	0	0	0	0	0	0	746	0	0	746	746	3
Bahamas	0	0	481	0	0	659	69	3,906	5,295	0	180	10,591	10,591	43
Brazil	2	0	0	0	4,257	0	0	0	6,903	0	(s)	11,160	11,162	46
Canada	8,724	1,982	44	0	1,997	0	43	4,968	4,672	161	1,614	15,481	24,206	99
Congo	3,791	0	0	0	0	0	0	0	1,506	0	0	1,506	5,297	22
Egypt	1,967	0	0	0	0	0	0	0	0	0	0	0	1,967	8
France	0	(s)	0	0	573	0	0	0	299	(s)	1	873	873	4
Ghana	0	0	0	0	0	0	0	0	250	0	0	250	250	1
Liberia	0	0	0	0	0	0	0	0	1,882	0	0	1,882	1,882	8
Mexico	22,933	0	0	3,216	252	215	0	885	625	291	289	5,772	28,705	118
Netherlands	1	(s)	0	219	5,837	196	0	6,858	1,418	36	251	14,814	14,815	61
Netherlands Antilles	0	0	7,178	426	5,108	893	0	2,293	31,654	0	122	47,675	47,675	195
Norway	18,580	0	0	0	0	89	0	366	0	0	0	456	19,036	78
Oman	983	0	0	0	0	0	0	0	585	0	0	585	1,578	6
People's Republic of China	2,596	0	0	0	0	0	0	0	4,335	0	(s)	(s)	2,596	11
Peru	2	0	0	0	0	0	0	0	0	0	0	4,335	4,337	18
Puerto Rico	0	0	1,248	0	2,951	453	0	772	0	1,011	1,363	7,798	7,798	32
Romania	0	0	252	3,852	1,571	0	0	0	389	183	3,634	9,882	9,882	41
Spain	0	0	0	0	1,167	825	0	123	782	0	11	2,908	2,908	12
Trinidad and Tobago	3,674	0	13	0	0	0	0	221	1,731	7	0	1,972	5,645	23
Other														
Tunisia	4	0	0	0	0	0	0	0	0	0	0	0	4	(s)
United Kingdom	41,961	525	471	79	2,491	154	0	163	655	(s)	287	4,825	46,786	192
Virgin Islands	0	0	3,988	0	11,983	5,236	1,794	12,961	31,575	0	0	67,536	67,536	277
Zaire	3,545	0	0	0	0	0	0	0	0	0	0	0	3,545	15

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - August 1984
(continued)

Source	Crude Oil 1	LPG	Unfin-ished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kero-sene	Distil Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod-ucts 2	Total Prod-ucts	Total Petro-leum	Total (Daily Average)
PAD District I														
Other Western Hemisphere	0	127	611	0	231	0	0	32	5,852	0	8	7,860	7,860	32
Other Eastern Hemisphere	5,823	2	45	1,226	7,642	627	60	3,243	7,448	459	1,076	21,827	27,651	113
Subtotal Other	127,849	2,636	14,332	9,018	46,061	9,346	1,966	36,792	110,411	2,147	8,835	241,544	369,393	1,514
Total Imports	215,753	3,663	15,427	10,011	58,246	13,291	1,966	56,388	155,038	2,425	12,806	329,261	545,014	2,234
PAD District II														
Arab OPEC														
Algeria	6,594	0	0	0	0	0	0	0	0	0	0	0	6,594	27
Kuwait	199	0	0	0	0	0	0	0	0	0	0	0	199	1
Saudi Arabia	2,291	0	0	0	0	0	0	0	0	0	0	0	2,291	9
United Arab Emirates	2,069	0	0	0	0	0	0	0	0	0	0	0	2,069	8
Subtotal Arab OPEC	11,154	0	0	0	0	0	0	0	0	0	0	0	11,154	46
Other OPEC														
Ecuador	2,116	0	0	0	0	0	0	0	0	0	0	0	2,116	9
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iran	1,040	0	0	0	0	0	0	0	0	0	0	0	1,040	4
Nigeria	7,203	0	203	0	0	0	0	0	0	0	0	203	7,406	30
Venezuela	417	0	0	0	0	0	0	0	0	0	0	0	417	2
Subtotal Other OPEC	10,775	0	203	0	0	0	0	0	0	0	0	203	10,979	45
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	218	0	0	0	0	0	0	0	0	218	218	1
Canada	58,596	34,196	2,428	75	842	0	0	2,033	1,578	3,665	642	45,459	104,055	426
Congo	1,957	0	0	0	0	0	0	0	0	0	0	0	1,957	8
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	31,548	0	0	0	0	0	0	0	0	0	0	0	31,548	129
Netherlands	1,044	0	0	0	0	0	0	0	0	0	0	0	1,044	4
Norway	519	0	0	0	0	0	0	0	0	0	0	0	519	2
Peru	222	0	0	0	0	0	0	0	0	0	0	0	222	1
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	5,758	0	0	0	0	0	0	0	0	0	0	0	5,758	24
United Kingdom	1,727	1	0	0	0	0	0	0	0	0	1	2	1,730	7
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	1,083	(s)	0	0	0	0	0	0	0	0	2	2	1,085	4
Subtotal Other	102,454	34,198	2,646	75	842	0	0	2,033	1,578	3,665	645	45,682	148,135	607
Total Imports	124,383	34,198	2,849	75	842	0	0	2,033	1,578	3,665	645	45,885	170,268	698
PAD District III														
Arab OPEC														
Algeria	28,643	0	345	0	0	0	0	50	996	2,749	4,952	9,093	37,736	155
Iraq	2,179	0	0	0	0	0	0	0	0	0	0	0	2,179	9
Kuwait	4,300	0	0	0	0	0	0	0	3,685	0	0	3,685	7,984	33

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - August 1984
(Thousand Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District III														
Qatar	1,497	0	0	0	0	0	0	0	0	0	0	0	1,497	6
Saudi Arabia	67,387	0	0	0	0	0	0	0	1,013	0	0	1,013	68,400	280
United Arab Emirates	17,269	0	780	0	0	221	0	0	1,311	0	541	2,853	20,122	82
Subtotal Arab OPEC	121,276	0	1,125	0	0	221	0	50	7,006	2,749	5,493	16,644	137,920	565
Other OPEC														
Ecuador	9,551	0	0	0	0	0	0	0	0	0	0	0	9,551	39
Gabon	9,550	0	0	0	0	0	0	0	0	0	0	0	9,550	39
Indonesia	17,303	1,356	0	0	0	0	0	0	2,580	229	71	4,236	21,539	88
Iran	1,032	0	0	0	0	0	0	0	0	0	0	0	1,032	4
Nigeria	32,241	0	1,378	0	0	0	0	3	163	0	248	1,792	34,034	139
Venezuela	42,161	0	4,156	790	2,290	0	0	0	1,809	68	167	9,279	51,440	211
Subtotal Other OPEC	111,838	1,356	5,535	790	2,290	0	0	3	4,552	297	486	15,308	127,146	521
Other														
Angola	8,166	0	0	0	0	0	0	0	0	0	0	0	8,166	33
Australia	2	0	0	0	0	0	0	0	519	0	164	684	685	3
Bahamas	0	0	5,519	0	0	0	0	349	0	0	2,172	8,040	8,040	33
Bolivia	260	0	0	0	0	0	0	0	0	0	0	0	260	1
Brazil	0	0	0	0	1,386	0	0	0	264	260	23	1,934	1,934	8
Canada	1	0	0	0	0	0	0	0	0	266	71	337	338	1
Congo	3,193	0	0	0	0	0	0	0	0	0	0	0	3,193	13
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	3
France	0	0	(s)	0	0	0	(s)	0	0	0	11	11	11	(s)
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	1
Mexico	104,326	1,581	8,255	294	439	29	0	200	380	9	273	11,460	115,786	475
Netherlands	0	0	0	160	0	0	0	0	0	300	519	978	978	4
Netherlands Antilles	0	28	1,261	0	1,078	0	0	358	0	0	59	2,784	2,784	11
Norway	8,324	(s)	0	0	0	361	0	0	654	0	0	361	6,685	36
Oman	1,116	0	0	0	0	0	0	0	0	0	0	0	1,116	7
People's Republic of China	362	0	557	494	0	223	0	0	262	0	30	524	886	4
Peru	0	0	0	0	0	0	0	0	0	2,034	0	2,034	2,034	8
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	239	239	1
Romania	0	0	0	0	0	190	0	0	0	10	18	436	436	2
Spain	0	0	218	0	0	0	0	0	0	0	16	16	9,765	40
Trinidad and Tobago	9,749	0	0	0	0	0	0	0	0	0	0	0	0	0
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other														
United Kingdom	38,293	0	266	291	127	171	0	(s)	0	156	426	1,437	39,730	163
Virgin Islands	0	0	4,785	0	0	0	0	0	1,338	356	339	6,819	6,819	28
Zaire	3,992	0	0	0	0	0	0	0	0	0	0	0	3,992	16
Other Western Hemisphere	721	0	1,088	39	0	0	0	6	0	229	154	1,528	2,249	9
Other Eastern Hemisphere	19,400	0	6,058	18	0	693	0	56	2,324	868	147	10,165	29,565	121
Subtotal Other	198,580	1,608	28,134	1,297	3,030	1,668	6	975	5,740	4,727	4,423	51,607	250,187	1,025
Total Imports	431,693	2,984	34,794	2,086	5,320	1,888	6	1,028	17,298	7,774	10,402	83,559	515,252	2,112

See footnotes at end of table.

Table 19. Year-to-Date Imports Of Crude Oil and Petroleum Products by Source and PAD District, January - August 1984
(continued)

Source	Crude Oil 1	LPG	Unfin- ished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Prod- ucts 2	Total Prod- ucts	Total Petro- leum	Total (Daily Average)
PAD District IV														
Other														
Canada	7,644	3,072	0	0	510	0	0	1,016	108	3	883	5,594	13,237	54
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	7,644	3,072	0	0	510	0	0	1,016	108	3	883	5,594	13,237	54
Total Imports	7,644	3,072	0	0	510	0	0	1,016	108	3	883	5,594	13,237	54
PAD District V														
Arab OPEC														
Algeria	934	0	253	0	0	0	0	0	0	0	0	253	1,187	5
Saudi Arabia	0	0	252	0	0	0	0	0	0	0	0	252	1,187	1
United Arab Emirates	0	0	269	0	0	0	0	0	0	0	0	269	1,187	1
Subtotal Arab OPEC	934	0	774	0	0	0	0	0	0	0	0	774	1,707	7
Other OPEC														
Ecuador	360	0	0	0	0	0	0	0	0	0	0	0	360	1
Indonesia	34,539	0	1,808	0	1,156	167	0	331	1,366	467	1	5,296	39,835	163
Venezuela	624	0	0	0	246	403	0	0	0	0	0	649	1,273	5
Subtotal Other OPEC	35,523	0	1,808	0	1,402	570	0	331	1,366	467	1	5,945	41,468	170
Other														
Australia	3,571	427	0	0	440	76	0	164	228	0	44	1,378	4,949	20
Brazil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brunei	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	5,842	3,096	156	0	930	216	(s)	165	76	178	45	4,862	10,710	44
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	0	0	158	7	0	20	99	0	0	284	284	1
Mexico	0	48	0	0	0	0	0	11	51	0	80	190	190	1
Netherlands	0	(s)	0	0	0	0	0	0	0	5	0	5	5	(s)
Netherlands Antilles	0	0	7	0	0	40	0	0	192	0	120	358	358	1
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other														
People's Republic of China	0	0	494	5,225	773	0	0	0	0	347	3	6,842	6,842	28
Puerto Rico	0	0	0	0	0	0	0	239	0	0	100	338	338	1
Romania	0	0	0	222	0	0	0	0	0	0	0	222	222	1
United Kingdom	0	0	0	0	0	0	0	0	0	(s)	0	(s)	(s)	(s)
Virgin Islands	0	0	0	0	0	0	0	0	0	46	0	46	46	(s)
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hemisphere	0	0	0	0	0	0	0	318	0	0	0	318	318	1
Other Eastern Hemisphere	1,404	(s)	1,032	215	806	282	0	218	1,356	81	848	4,838	6,242	26
Subtotal Other	10,818	3,571	1,688	5,662	3,107	620	(s)	1,135	2,002	656	1,240	19,681	30,504	125
Total Imports	47,274	3,571	4,270	5,662	4,509	1,190	(s)	1,466	3,368	1,123	1,241	26,400	73,679	302

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.

2 Includes aviation gasoline, aviation blending components, waxes, asphalt, lubricants, pentanes plus, naphthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 20. Exports of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) 1	0	887	0	0	4,999	5,886
Natural Gas Liquids	38	541	346	0	204	1,129
Pentanes Plus	0	76	0	0	0	76
Liquefied Petroleum Gases	38	465	346	0	204	1,053
Ethane	(s)	152	0	0	(s)	152
Propane	25	127	343	0	81	576
Normal Butane	13	111	3	0	122	249
Isobutane	0	76	0	0	0	76
Finished Motor Gasoline	4	0	32	0	8	44
Naphtha-Type Jet Fuel	0	0	26	0	0	26
Kerosene-Type Jet Fuel	0	0	0	0	52	52
Kerosene	4	0	(s)	0	0	4
Distillate Fuel Oil	210	0	313	0	1,782	2,305
Residual Fuel Oil	212	0	1,791	0	6,061	8,065
Naphtha < 400 Deg. for Petrochem. Feedstock	56	13	110	1	9	189
Other Oils > 400 Deg. for Petrochem. Feedstock	1	29	93	0	1	124
Special Naphthas	4	2	18	0	3	26
Lubricants	68	18	132	1	59	279
Waxes	3	1	14	0	4	22
Petroleum Coke	395	260	1,547	0	2,257	4,459
Asphalt	32	16	1	1	(s)	51
Miscellaneous Products	15	2	11	(s)	4	32
Total Product Exports	1,043	882	4,434	3	10,443	16,805
Total Exports	1,043	1,769	4,434	3	15,442	22,691

1 Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 21. Year-to-Date Exports Of Crude Oil And Petroleum Products By PAD District, January - August 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ¹	0	3,943	(s)	0	41,276	45,219
Natural Gas Liquids	318	4,397	5,464		1,371	11,550
Pentanes Plus	0	649	0	(s)	0	649
Liquefied Petroleum Gases	318	3,748	5,464	(s)	1,371	10,902
Ethane	(s)	1,297	(s)	0	(s)	1,297
Propane	155	1,093	4,510	(s)	550	6,307
Normal Butane	163	710	954	(s)	821	2,649
Isobutane	0	649	0	0	0	649
Finished Motor Gasoline	136	4	330	0	745	1,215
Naphtha-Type Jet Fuel	(s)	0	200	0	0	200
Kerosene-Type Jet Fuel	176	139	431	0	380	1,127
Kerosene	20	0	3	0	(s)	23
Distillate Fuel Oil	631	56	2,793	(s)	8,603	12,083
Residual Fuel Oil	845	0	13,813	0	25,380	40,039
Naphtha < 400 Deg. for Petrochem. Feedstock	458	78	907	7	171	1,621
Other Oils > 400 Deg. for Petrochem. Feedstock	3	237	2,965	-0	264	3,469
Special Naphthas	49	73	241	3	250	615
Lubricants	890	222	2,311	10	369	3,802
Waxes	37	6	229	0	29	301
Petroleum Coke	1,779	2,045	24,740	4	19,158	47,725
Asphalt	47	59	27	4	10	148
Miscellaneous Products	123	14	97	1	26	261
Total Product Exports	5,512	7,329	54,553	28	56,756	124,178
Total Exports	5,512	11,272	54,553	28	98,032	169,397

¹ Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels or less than 500 barrels per day.
Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, August 1984
(Thousand Barrels)

Destination	Crude Oil	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	0	6	(s)	0	0	(s)	7	(s)
Australia	0	(s)	0	0	0	0	6	2	(s)	253	0	1	263	8
Bahamas	0	5	1	0	220	0	0	1	0	0	0	(s)	227	7
Bahrain	0	0	0	0	0	0	0	(s)	0	47	0	0	47	2
Belgium & Luxembourg	0	3	0	0	0	0	0	15	(s)	618	0	1	636	21
Brazil	0	(s)	0	0	0	0	(s)	(s)	0	0	0	2	3	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	30	0	0	30	1
Canada	887	464	3	0	883	38	4	46	2	573	49	135	3,084	99
Chile	0	(s)	32	26	144	30	(s)	10	(s)	(s)	1	1	233	8
China (Taiwan)	0	1	0	0	285	220	(s)	(s)	(s)	(s)	0	1	519	17
Colombia	0	(s)	0	0	0	0	2	4	(s)	0	(s)	1	7	(s)
Costa Rica	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Denmark	0	(s)	0	0	0	0	(s)	1	0	0	0	(s)	1	(s)
Dominican Republic	0	0	0	0	0	0	(s)	2	(s)	0	0	1	3	(s)
Ecuador	0	0	0	0	0	0	(s)	3	0	0	0	(s)	3	(s)
Egypt	0	0	0	0	0	0	0	1	0	0	0	0	1	(s)
El Salvador	0	0	0	0	0	0	(s)	1	0	0	0	0	(s)	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
France	0	0	0	0	0	212	0	(s)	2	4	0	16	235	8
French Pacific Isl.	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Greece	0	3	0	0	0	0	0	(s)	0	77	0	0	80	3
Guatemala	0	0	0	0	0	0	0	6	0	0	0	0	64	2
Guinea	0	58	0	0	0	0	(s)	1	0	0	0	0	1	(s)
Honduras	0	(s)	0	0	0	0	0	2	0	0	0	(s)	2	(s)
Hong Kong	0	(s)	(s)	0	(s)	0	0	1	(s)	0	(s)	(s)	2	(s)
India	0	(s)	0	0	0	0	0	13	(s)	0	(s)	1	13	(s)
Indonesia	0	0	0	0	0	0	0	4	(s)	0	0	0	5	(s)
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Israel	0	6	0	0	0	0	(s)	0	0	(s)	0	0	7	(s)
Italy	0	2	0	0	0	342	0	1	(s)	325	(s)	94	764	25
Ivory Coast	0	0	0	0	0	124	0	(s)	0	0	(s)	0	124	4
Jamaica	0	4	0	0	0	0	0	2	0	0	(s)	1	7	(s)
Japan	0	9	0	0	525	2,712	(s)	6	3	1,007	0	39	4,301	139
Jordan	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Korea, Republic of	0	3	0	0	(s)	239	2	8	0	(s)	(s)	4	256	8
Kuwait	0	0	0	0	0	0	0	2	0	0	0	0	2	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	(s)	0	1	(s)
Liberia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Malaysia	0	0	0	0	0	0	0	1	0	0	(s)	(s)	2	(s)
Mexico	0	463	8	52	(s)	605	(s)	29	5	35	0	50	1,247	40
Netherlands	0	2	0	0	0	0	0	1	(s)	792	0	20	815	26
Netherlands Antilles	0	0	0	0	137	1,122	0	1	0	0	0	(s)	1,260	41
New Zealand	0	0	0	0	0	0	(s)	(s)	(s)	112	(s)	1	113	4
Nicaragua	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Nigeria	0	(s)	0	0	0	0	0	11	(s)	0	(s)	2	14	(s)
Norway	0	(s)	0	0	0	0	0	(s)	0	29	0	(s)	30	1
Pacific Trust Terr.	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Panama	0	0	0	0	0	0	(s)	3	(s)	0	(s)	1	270	9
Peru	0	0	0	0	0	0	(s)	2	0	0	0	(s)	2	(s)
Philippines	0	0	0	0	0	0	0	1	(s)	0	0	3	4	(s)
Puerto Rico	0	15	0	0	0	13	7	17	(s)	1	0	24	1,754	57
Rep. of South Africa	0	1	0	0	(s)	0	(s)	2	5	76	(s)	1	85	3

See footnotes at end of table.

Table 22. Exports of Crude Oil and Petroleum Products by Destination, August 1984
(Thousand Barrels)
(continued)

Destination	Crude Oil ¹	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Saudi Arabia	0	0	0	0	0	0	0	3	0	0	0	1	12	(s)
Singapore	0	(s)	0	0	0	1,143	4	1	(s)	0	(s)	1	1,149	37
Spain	0	0	0	0	32	160	0	(s)	(s)	238	0	1	431	14
Sweden	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Switzerland	0	1	0	0	0	0	0	1	0	(s)	(s)	(s)	2	(s)
Thailand	0	0	0	0	0	0	0	(s)	0	0	0	1	2	(s)
Trinidad and Tobago	0	(s)	0	0	0	0	0	1	(s)	0	(s)	1	2	(s)
Turkey	0	0	0	0	0	0	0	2	(s)	0	(s)	1	2	(s)
United Arab Emirates	0	0	0	0	0	0	0	(s)	0	0	0	2	3	(s)
United Kingdom	0	0	0	0	(s)	0	0	1	0	0	0	(s)	(s)	(s)
U.S.S.R.	0	2	0	0	(s)	0	0	6	(s)	0	0	1	2	(s)
Uruguay	0	0	0	0	0	0	0	44	0	28	(s)	6	42	1
Venezuela	0	(s)	0	0	0	0	0	1	0	0	0	(s)	44	1
Virgin Islands	0	1	0	0	0	0	0	1	(s)	0	0	1	2	(s)
West Germany	2,268	0	0	0	0	734	0	0	0	(s)	1	3	6	(s)
Yugoslavia	0	0	0	0	0	0	0	0	0	0	0	0	3,002	97
Other	0	0	0	0	0	0	0	2	1	208	0	1	212	7
Total	1,054	1	0	0	(s)	182	(s)	6	(s)	5	0	(s)	(s)	(s)
	5,886	1,053	44	77	2,305	8,065	26	279	22	4,459	51	425	1,252	40
													22,691	732

¹ Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

² Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	1	0	431	(s)	0	4	110	2	1	0	159	708	3
Australia	0	6	269	0	1	800	31	43	1	1,238	1	91	2,481	10
Bahamas	0	72	7	(s)	755	859	0	12	(s)	0	0	2	1,707	7
Bahrain	0	0	0	0	(s)	0	(s)	0	0	276	0	1	278	1
Belgium & Luxembourg	0	10	(s)	0	0	0	3	70	1	5,980	(s)	5	5,469	22
Brazil	0	1	0	0	0	0	7	9	(s)	260	0	10	288	1
Cameroon	0	0	0	0	0	0	0	(s)	(s)	121	0	(s)	121	(s)
Canada	3,943	3,763	131	220	2,348	1,793	89	526	21	3,886	105	1,170	17,996	74
Chile	0	(s)	83	43	256	61	2	77	(s)	1	2	5	531	2
China (Taiwan)	0	2	0	0	920	3,770	1	80	1	94	1	9	4,877	20
Colombia	0	4	(s)	0	0	0	5	32	61	1	0	7	109	(s)
Costa Rica	0	49	0	0	0	0	16	35	1	22	10	8	140	1
Denmark	0	1	0	0	(s)	0	0	2	1	513	0	1	518	2
Dominican Republic	0	259	0	0	0	0	(s)	7	1	64	0	4	335	1
Ecuador	0	351	25	0	332	(s)	3	7	11	0	1	7	728	3
Egypt	0	1	0	0	(s)	0	(s)	14	(s)	0	0	1	17	(s)
El Salvador	0	1	0	0	0	0	1	30	(s)	0	0	3	35	(s)
Finland	0	0	0	0	0	0	0	3	(s)	0	0	2	5	(s)
France	0	38	1	0	1	891	(s)	9	11	3,920	0	806	5,678	23
French Pacific Isl	0	0	0	0	0	350	0	2	0	0	(s)	(s)	351	1
Ghana	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Greece	0	5	0	0	(s)	0	(s)	2	0	230	0	2	239	1
Guatemala	0	416	0	0	0	0	4	27	3	0	(s)	5	455	2
Guinea	0	(s)	0	0	0	358	(s)	6	0	0	0	(s)	365	1
Honduras	0	2	0	0	0	0	4	39	(s)	0	1	2	49	(s)
Hong Kong	0	1	0	0	(s)	1,394	2	10	1	38	(s)	4	1,414	6
India	0	(s)	0	0	(s)	0	0	30	(s)	266	(s)	9	302	1
Indonesia	0	1	0	0	1	0	(s)	25	(s)	0	0	0	1	(s)
Iran	0	0	0	0	0	0	1	1	0	0	0	0	1	(s)
Israel	0	7	0	0	0	0	2	1	(s)	(s)	0	9	19	(s)
Italy	0	158	0	0	(s)	3,290	5	6	4	5,819	(s)	1,022	10,304	42
Ivory Coast	0	0	0	0	174	280	0	26	0	0	1	(s)	481	2
Jamaica	0	179	25	0	0	330	(s)	74	(s)	0	(s)	8	617	3
Japan	0	17	(s)	0	2,860	8,224	307	177	19	9,980	(s)	321	21,906	90
Jordan	0	0	0	0	0	0	(s)	5	0	(s)	0	(s)	6	(s)
Korea, Republic of	0	6	0	0	668	1,578	3	37	3	768	(s)	229	3,292	13
Kuwait	0	3	(s)	0	0	0	(s)	13	0	(s)	0	1	18	(s)
Lebanon	0	0	0	0	0	0	0	6	0	0	(s)	(s)	6	(s)
Liberia	0	1	0	0										

53

Table 23. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination, January - August 1984
(Thousand Barrels)
(continued)

Destination	Crude Oil ¹	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other ²	Total	Total (Daily Average)
Saudi Arabia	0	63	0	0	0	(s)	1	137	(s)	0	0	24	225	1
Singapore	0	12	0	0	0	100	17	64	(s)	23	(s)	11	2,934	12
Spain	0	4	0	0	381	1,468	0	379	(s)	4,527	0	254	7,015	29
Sunham	0	0	0	0	0	0	0	11	0	45	0	1	57	(s)
Sweden	0	3	0	0	0	0	0	10	(s)	315	(s)	5	334	1
Switzerland	0	3	0	0	0	0	0	5	1	0	0	4	12	(s)
Thailand	0	(s)	30	0	0	0	1	38	(s)	(s)	0	0	64	132
Trinidad and Tobago	0	41	0	206	(s)	0	5	11	(s)	0	(s)	3	255	1
Turkey	0	(s)	0	0	(s)	0	(s)	1	(s)	302	0	174	478	2
United Arab Emirates	0	1	0	0	(s)	0	(s)	57	0	181	0	23	263	1
United Kingdom	0	44	(s)	0	8	1,381	1	39	3	95	15	23	1,609	7
U.S.S.R.	0	0	0	0	0	0	0	268	0	237	0	(s)	505	2
Uruguay	0	(s)	0	0	0	0	(s)	6	(s)	0	(s)	2	8	(s)
Venezuela	(s)	525	0	0	0	0	7	12	3	559	1	16	1,122	5
Virgin Islands	27,802	14	0	0	0	3,947	0	(s)	0	0	0	(s)	31,764	130
West Germany	0	(s)	0	0	0	0	0	(s)	25	869	0	95	1,063	4
Yugoslavia	0	0	0	0	0	0	0	73	(s)	341	0	(s)	341	1
Other	6,530	99	0	0	151	553	0	59	1	183	4	161	7,741	32
Total	45,219	10,902	1,215	1,327	12,083	40,039	615	3,802	301	47,725	148	6,022	169,397	694

¹ Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

² Includes pentanes plus, kerosene, naphtha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II						PAD District III					PAD District IV		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	Dist. V	
Crude Oil (incl. lease condensate)																	
Refinery	—	—	14,599	—	—	—	—	13,694	—	—	—	—	—	43,099	2,133	23,392	96,917
Tank Farms and Pipelines	—	—	1,459	—	—	—	—	59,341	—	—	—	—	—	95,396	9,657	26,865	192,718
Leases	—	—	60	—	—	—	—	1,553	—	—	—	—	—	16,734	1,298	1,598	21,243
Strategic Petroleum Reserve ¹	—	—	0	—	—	—	—	0	—	—	—	—	—	429,467	0	0	429,467
Alaskan In-Transit	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	24,041	24,041
Total	—	—	16,118	—	—	—	—	74,588	—	—	—	—	—	584,696	13,088	75,896	764,386
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	37,752	2,659	40,411	925	39,795	5,968	15,509	62,197	9,568	73,311	44,590	4,955	1,612	134,036	11,432	60,457	308,533
Bulk Terminal	—	—	110,163	—	—	—	—	85,046	—	—	—	—	—	86,711	3,043	22,288	307,251
Pipeline	—	—	25,953	—	—	—	—	35,670	—	—	—	—	—	40,279	3,289	4,539	109,730
Natural Gas Processing Plant	213	36	249	0	690	43	1,658	2,391	1,458	4,958	469	75	208	7,168	189	183	10,180
Total	—	—	176,776	—	—	—	—	185,304	—	—	—	—	—	288,194	17,953	87,467	735,694
Pentanes Plus																	
Refinery	13	0	13	0	42	27	145	214	112	222	118	17	6	475	23	13	738
Bulk Terminal	—	—	21	—	—	—	—	2,191	—	—	—	—	—	3,689	0	4	5,905
Pipeline	—	—	0	—	—	—	—	769	—	—	—	—	—	1,149	149	5	2,072
Natural Gas Processing Plant	4	5	9	0	60	21	329	410	487	577	211	31	21	1,327	62	25	1,833
Total	—	—	43	—	—	—	—	3,584	—	—	—	—	—	6,640	234	47	10,548
Liquefied Petroleum Gases																	
Refinery	856	15	871	241	2,128	168	624	3,161	198	1,091	1,609	42	25	2,965	352	722	8,071
Bulk Terminal	—	—	987	—	—	—	—	22,329	—	—	—	—	—	58,604	115	1,855	83,890
Pipeline	—	—	1,382	—	—	—	—	6,407	—	—	—	—	—	5,350	1,232	0	14,371
Natural Gas Processing Plant	209	31	240	0	627	22	1,328	1,978	883	4,380	258	41	187	5,749	121	158	8,246
Total	—	—	3,480	—	—	—	—	33,875	—	—	—	—	—	72,668	1,820	2,735	114,578
Ethane																	
Refinery	7	0	7	0	6	19	0	25	0	7	0	0	0	7	0	0	39
Bulk Terminal	—	—	0	—	—	—	—	2,452	—	—	—	—	—	12,689	0	0	15,141
Pipeline	—	—	0	—	—	—	—	1,987	—	—	—	—	—	1,891	130	0	4,008
Natural Gas Processing Plant	0	0	0	0	24	0	290	314	62	1,185	0	1	21	1,269	1	0	1,584
Total	—	—	7	—	—	—	—	4,778	—	—	—	—	—	15,856	131	0	20,772

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II						PAD District III					PAD District IV		United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mtn.	Dist. V	
Propane for Petrochemical Feedstock Use																	
Refinery	63	0	63	0	82	0	2	84	2	6	121	0	0	129	0	0	276
Total	63	0	63	0	82	0	2	84	2	6	121	0	0	129	0	0	276
Propane For Other Uses																	
Refinery	717	5	722	2	1,391	18	162	1,573	62	55	1,099	4	2	1,222	174	302	3,993
Bulk Terminal	—	—	775	—	—	—	—	16,069	—	—	—	—	—	28,895	114	494	46,347
Pipeline	—	—	1,227	—	—	—	—	3,413	—	—	—	—	—	2,055	978	0	7,673
Natural Gas Processing Plant	190	31	221	0	481	10	674	1,165	475	1,608	145	15	109	2,352	80	138	3,956
Total	—	—	2,945	—	—	—	—	22,220	—	—	—	—	—	34,524	1,346	934	61,969
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	44	0	44	0	4	0	1	0	5	3	2	54
Total	—	—	0	—	—	—	—	44	—	—	—	—	—	5	3	2	54
Normal Butane For Other Uses																	
Refinery	55	10	65	198	400	43	295	936	91	796	180	27	17	1,111	131	382	2,625
Bulk Terminal	—	—	193	—	—	—	—	2,681	—	—	—	—	—	11,785	1	1,129	15,789
Pipeline	—	—	125	—	—	—	—	607	—	—	—	—	—	898	81	0	1,711
Natural Gas Processing Plant	18	0	18	0	100	10	278	388	292	1,070	76	15	46	1,499	34	14	1,953
Total	—	—	401	—	—	—	—	4,612	—	—	—	—	—	15,293	247	1,525	22,078
Isobutane																	
Refinery	14	0	14	41	249	44	165	499	43	223	209	10	6	491	44	36	1,084
Bulk Terminal	—	—	19	—	—	—	—	1,127	—	—	—	—	—	5,235	0	232	6,613
Pipeline	—	—	30	—	—	—	—	400	—	—	—	—	—	506	43	0	979
Natural Gas Processing Plant	1	0	1	0	22	2	87	111	54	517	37	10	11	629	6	6	753
Total	—	—	64	—	—	—	—	2,137	—	—	—	—	—	6,861	93	274	9,429
Other Hydrocarbons and Alcohol																	
Refinery	99	0	99	0	133	0	0	133	1	88	2	0	0	91	0	5	328
Total	—	—	99	—	—	—	—	133	—	—	—	—	—	91	0	5	328
Unfinished Oils																	
Refinery	3,161	142	3,303	46	2,757	132	975	3,910	644	7,940	5,700	247	68	14,599	514	4,696	27,022
Naphthas and Lighter	1,386	10	1,396	0	1,830	4	513	2,347	652	7,141	1,989	31	6	9,819	437	5,046	19,045
Kerosene and Lighter Gas Oils	4,634	317	4,951	108	4,462	336	1,659	6,565	830	9,175	6,451	112	190	16,758	994	9,207	38,475
Heavy Gas Oils	1,957	289	2,246	1	2,887	16	1,270	4,174	467	6,261	3,330	55	16	10,129	513	4,452	21,514
Residuum	11,138	758	11,896	155	11,936	488	4,417	16,996	2,593	30,517	17,470	445	280	51,305	2,458	23,401	106,056
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III					PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V
Motor Gasoline Blending Components																	
Refinery	6,022	77	6,099	44	4,745	537	1,801	7,127	1,291	8,090	6,020	94	272	15,767	1,604	7,389	37,986
Bulk Terminal	—	—	21	—	—	—	—	142	—	—	—	—	—	223	1	149	536
Pipeline	—	—	0	—	—	—	—	1	—	—	—	—	—	0	0	0	1
Total	—	—	6,120	—	—	—	—	7,270	—	—	—	—	—	15,990	1,605	7,538	38,523
Aviation Gasoline Blending Components																	
Refinery	0	0	0	0	46	0	31	77	0	36	87	0	0	123	0	11	211
Total	—	—	0	—	—	—	—	77	—	—	—	—	—	123	0	11	211
Total Finished Motor Gasoline																	
Refinery	5,269	179	5,448	97	5,333	814	2,598	9,842	2,139	8,215	4,805	998	208	16,365	2,042	7,534	41,231
Bulk Terminal	—	—	39,842	—	—	—	—	29,034	—	—	—	—	—	11,658	1,641	9,814	91,989
Pipeline	—	—	14,540	—	—	—	—	16,564	—	—	—	—	—	19,155	1,116	1,979	53,354
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
Total	—	—	59,830	—	—	—	—	55,440	—	—	—	—	—	47,178	4,805	19,327	186,580
Finished Leaded Motor Gasoline																	
Refinery	2,093	98	2,191	37	2,923	447	1,305	4,712	1,065	3,386	1,759	328	113	6,651	1,166	3,074	17,794
Bulk Terminal	—	—	18,650	—	—	—	—	14,540	—	—	—	—	—	5,153	1,078	4,699	44,120
Pipeline	—	—	5,543	—	—	—	—	8,162	—	—	—	—	—	8,610	660	908	23,883
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
Total	—	—	26,384	—	—	—	—	27,414	—	—	—	—	—	20,414	2,909	8,681	85,802
Finished Unleaded Motor Gasoline																	
Refinery	3,176	81	3,257	60	3,410	367	1,293	5,130	1,074	4,829	3,046	670	95	9,714	876	4,460	23,437
Bulk Terminal	—	—	21,192	—	—	—	—	14,494	—	—	—	—	—	6,505	563	5,115	47,869
Pipeline	—	—	8,997	—	—	—	—	8,402	—	—	—	—	—	10,545	456	1,071	29,471
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	—	—	33,446	—	—	—	—	28,026	—	—	—	—	—	26,764	1,895	10,646	100,778
Finished Aviation Gasoline																	
Refinery	45	0	45	0	56	0	11	67	149	395	112	0	0	656	38	209	1,015
Bulk Terminal	—	—	336	—	—	—	—	365	—	—	—	—	—	67	10	369	1,147
Pipeline	—	—	0	—	—	—	—	89	—	—	—	—	—	97	0	30	216
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	25	0	0	0	0	25	0	0	25
Total	—	—	381	—	—	—	—	521	—	—	—	—	—	845	48	608	2,403

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II						PAD District III				PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Dak.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	PAD Dist. IV Rocky M.		PAD Dist. V West Coast
Naphtha-Type Jet Fuel																	
Refinery	384	30	414	0	563	82	155	800	322	780	374	164	217	1,857	245	825	4,141
Bulk Terminal	—	—	451	—	—	—	—	538	—	—	—	—	—	161	7	500	1,657
Pipeline	—	—	142	—	—	—	—	112	—	—	—	—	—	523	76	409	1,262
Total	—	—	1,007	—	—	—	—	1,450	—	—	—	—	—	2,541	328	1,734	7,060
Kerosene-Type Jet Fuel																	
Refinery	1,208	0	1,208	37	1,349	189	306	1,881	317	3,528	2,987	10	83	6,925	451	3,482	13,947
Bulk Terminal	—	—	4,515	—	—	—	—	4,969	—	—	—	—	—	2,031	233	1,680	13,428
Pipeline	—	—	3,479	—	—	—	—	2,484	—	—	—	—	—	4,467	181	596	11,207
Total	—	—	9,202	—	—	—	—	9,334	—	—	—	—	—	13,423	865	5,758	38,582
Kerosene																	
Refinery	355	112	467	0	485	29	421	935	69	544	504	92	46	1,255	0	261	2,918
Bulk Terminal	—	—	3,043	—	—	—	—	1,026	—	—	—	—	—	472	37	40	4,618
Pipeline	—	—	117	—	—	—	—	246	—	—	—	—	—	587	0	0	950
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
Total	—	—	3,627	—	—	—	—	2,207	—	—	—	—	—	2,315	37	301	8,487
Distillate Fuel Oils																	
Refinery	5,863	369	6,232	73	6,452	1,705	3,221	11,451	1,027	8,937	4,218	1,084	258	15,524	2,197	5,054	40,458
Bulk Terminal	—	—	36,661	—	—	—	—	18,902	—	—	—	—	—	6,398	779	4,700	67,440
Pipeline	—	—	6,288	—	—	—	—	8,906	—	—	—	—	—	8,674	535	1,238	25,641
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1
Total	—	—	49,181	—	—	—	—	39,259	—	—	—	—	—	30,597	3,511	10,992	133,540
Residual Fuel Oils																	
Refinery	2,372	76	2,448	50	1,486	274	183	1,993	349	3,586	2,706	168	18	6,827	532	7,027	18,827
Bulk Terminal	—	—	19,431	—	—	—	—	1,649	—	—	—	—	—	2,383	0	2,245	25,708
Pipeline	—	—	5	—	—	—	—	0	—	—	—	—	—	0	0	132	137
Total	—	—	21,884	—	—	—	—	3,642	—	—	—	—	—	9,210	532	9,404	44,672
Naptha < 400 Deg. Petro. Feedstock																	
Refinery	283	0	283	0	99	0	58	157	82	773	473	35	0	1,363	0	74	1,877
Total	283	0	283	0	99	0	58	157	82	773	473	35	0	1,363	0	74	1,877
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	5	0	5	0	30	0	0	30	242	1,219	155	0	0	1,616	5	96	1,752
Total	5	0	5	0	30	0	0	30	242	1,219	155	0	0	1,616	5	96	1,752

See footnotes at end of table.

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, August 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II						PAD District III				PAD District IV		United States	
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.		Dist. V West Coast
Special Naphthas																	
Refinery	57	30	87	0	120	0	134	254	46	985	119	137	0	1,287	7	248	1,883
Bulk Terminal	—	—	514	—	—	—	—	116	—	—	—	—	—	20	0	29	679
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	52	0	0	0	0	52	0	0	52
Total	—	—	601	—	—	—	—	370	—	—	—	—	—	1,359	7	277	2,614
Lubricants																	
Refinery	1,180	845	2,025	0	809	0	475	1,284	27	3,088	1,348	588	199	5,250	65	508	9,132
Bulk Terminal	—	—	1,376	—	—	—	—	869	—	—	—	—	—	251	2	614	3,112
Total	—	—	3,401	—	—	—	—	2,153	—	—	—	—	—	5,501	67	1,122	12,244
Waxes																	
Refinery	4	76	80	0	22	0	35	57	12	191	118	56	0	377	0	39	553
Total	—	—	80	—	—	—	—	57	—	—	—	—	—	377	0	39	553
Petroleum Coke																	
Refinery	892	0	892	0	294	376	135	805	0	252	786	206	0	1,244	159	1,669	4,769
Total	892	0	892	0	294	376	135	805	0	252	786	206	0	1,244	159	1,669	4,769
Asphalt and Road Oil																	
Refinery	1,545	72	1,617	228	2,561	1,277	741	4,807	560	426	545	743	0	2,274	1,235	1,733	11,666
Bulk Terminal	—	—	2,853	—	—	—	—	2,879	—	—	—	—	—	579	216	155	6,682
Total	—	—	4,470	—	—	—	—	7,686	—	—	—	—	—	2,853	1,451	1,888	18,348
Miscellaneous Products																	
Refinery	162	20	182	0	106	2	18	126	32	348	34	76	0	490	19	157	974
Bulk Terminal	—	—	112	—	—	—	—	37	—	—	—	—	—	175	2	134	460
Pipeline	—	—	0	—	—	—	—	92	—	—	—	—	—	277	0	150	519
Natural Gas Processing Plant	0	0	0	0	3	0	0	3	10	0	0	3	0	13	0	0	16
Total	—	—	294	—	—	—	—	258	—	—	—	—	—	955	21	441	1,969
Total Stocks, All Oils	—	—	192,894	—	—	—	—	259,892	—	—	—	—	—	852,890	31,041	163,363	1,500,080

¹ Includes 33,879 thousand barrels of domestic crude oil.

Source: See Explanatory Notes on Data Collection and Estimation.

— Not Applicable.

Table 25. Refinery and Bulk Terminal Stocks of Selected Petroleum Products by State, August 1984
(Thousand Barrels)

State	Leaded Motor Gasoline	Unleaded Motor Gasoline	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
PAD District I Total	20,841	24,449	3,510	42,893	21,879
Connecticut	489	772	63	2,025	251
Delaware, D.C., Maryland	891	1,397	137	3,386	2,167
Florida	2,406	3,395	147	2,103	1,000
Georgia	1,170	1,351	94	1,382	165
Maine	320	338	53	1,070	670
Massachusetts	1,205	1,036	78	3,244	953
New Hampshire, Vermont	28	39	w	359	185
New Jersey	2,703	5,235	803	11,458	8,830
New York	4,300	2,777	412	6,067	3,132
North Carolina	1,559	1,162	515	1,623	776
Pennsylvania	2,795	3,582	658	4,849	1,837
Rhode Island	292	512	w	1,178	103
South Carolina	897	1,013	185	1,294	573
Virginia	1,593	1,641	313	2,631	1,188
West Virginia	193	199	17	224	49
PAD District II Total	19,252	19,624	1,961	30,353	3,642
Illinois	3,618	4,065	237	5,542	951
Indiana	2,371	2,373	276	5,402	523
Iowa	759	752	w	1,429	w
Kansas	1,319	1,241	24	1,753	73
Kentucky	1,106	1,290	228	1,581	199
Michigan	1,925	1,874	188	2,574	321
Minnesota	1,052	811	w	1,715	300
Missouri	748	533	w	708	w
Nebraska	249	227	0	224	0
North & South Dakota	233	345	0	985	w
Ohio	2,728	2,926	429	3,300	483
Oklahoma	929	981	398	2,297	198
Tennessee	1,057	1,173	100	933	163
Wisconsin	1,158	1,033	w	1,910	145
PAD District III Total	11,804	16,219	1,727	21,922	9,210
Alabama	845	864	110	939	729
Arkansas	196	213	w	189	61
Louisiana	1,723	2,995	512	4,312	3,232
Mississippi	976	1,435	19	1,661	586
New Mexico	211	178	w	364	18
Texas	7,853	10,534	1,036	14,457	4,584
PAD District IV Total	2,244	1,439	37	2,976	532
Colorado	683	403	0	467	94
Idaho	220	81	0	208	0
Montana	545	393	w	1,007	90
Utah	293	187	0	496	212
Wyoming	503	375	w	798	136
PAD District V Total	7,773	9,575	301	9,754	9,272
Alaska	469	280	w	960	w
Arizona	321	304	w	278	0
California	4,231	6,303	200	5,147	6,772
Hawaii	258	220	0	274	w
Nevada	180	162	w	110	w
Oregon	648	567	w	888	307
Washington	1,686	1,739	w	2,097	1,369
United States Total	61,914	71,306	7,536	107,898	44,535

w = Withheld to avoid disclosure of individual company data.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 26. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge between PAD Districts, August 1984
(Thousand Barrels)

Commodity	From I to					From II to					From III to					From IV to					From V to				
	II	III	V	I	III	I	III	IV	V	I	II	IV	V	I	II	III	V	I	II	III	IV				
Crude Oil (Tanker and Barge only)	74	0	0	0	0	0	0	0	0	431	926	0	0	0	0	0	0	3,465	0	13,331	0				
Petroleum Products	9,170	409	0	2,635	8,971	2,286	119	74,237	33,552	0	1,908	1,897	716	1,110	0	0	0	0	0	0	0				
Pentanes Plus	0	0	0	0	858	0	0	0	1,422	0	0	97	120	0	0	0	0	0	0	0	0				
Liquefied Petroleum Gases	0	0	0	706	5,273	55	0	2,075	7,840	0	0	676	596	0	0	0	0	0	0	0	0				
Unfinished Oils	10	109	0	0	0	0	119	1,325	235	0	0	0	0	0	0	0	0	0	0	0	0				
Motor Gasoline	0	0	0	0	0	0	0	121	83	0	0	0	0	0	0	0	0	0	0	0	0				
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Aviation Gasoline	0	0	0	1,203	1,973	1,404	0	44,981	14,841	0	899	641	0	761	0	0	0	0	0	0	0				
Aviation Gasoline Blending Components	6,275	0	0	386	915	737	0	15,957	7,365	0	460	393	0	480	0	0	0	0	0	0	0				
Finished Motor Gasoline	3,085	0	0	817	1,058	667	0	29,024	7,476	0	439	248	0	281	0	0	0	0	0	0	0				
Finished Unleaded Motor Gasoline	3,190	0	0	0	0	27	0	137	162	0	0	0	0	0	0	0	0	0	0	0	0				
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	225	73	0	100	0	0	0	0	0	0	0				
Naphtha-Type Jet Fuel	80	81	0	0	140	0	0	435	1	0	283	0	82	0	0	0	0	0	0	0	0				
Kerosene-Type Jet Fuel	250	0	0	118	21	560	0	8,564	2,615	0	0	0	0	0	0	0	0	0	0	0	0				
Kerosene	24	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	0	0	0	0	0				
Distillate Fuel Oil	2,453	0	0	237	546	240	0	15,010	5,340	0	393	410	0	167	0	0	0	0	0	0	0				
Residual Fuel Oil	0	0	0	0	38	0	0	374	0	0	0	0	0	0	0	0	0	0	0	0	0				
Naphtha and Other Oils for Petro.	43	0	0	28	0	0	0	9	10	0	0	0	0	0	0	0	0	0	0	0	0				
Feedstock	0	0	0	0	0	0	0	369	194	0	0	0	0	0	0	0	0	0	0	0	0				
Special Naphthas	0	0	0	0	0	0	0	553	227	0	108	0	0	0	0	0	0	0	0	0	0				
Lubricants	14	45	0	80	89	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0				
Waxes	0	0	0	0	0	0	0	52	527	0	0	0	0	0	0	0	0	0	0	0	0				
Asphalt and Road Oil	0	116	0	192	0	0	0	51	527	0	0	0	0	0	0	0	0	0	0	0	0				
Miscellaneous Products	21	58	0	10	33	0	0	59	10	0	0	0	0	0	0	0	0	0	0	0	0				
Total All Products	9,244	409	0	2,635	8,971	2,286	119	74,668	34,478	0	1,908	1,897	716	1,110	0	0	0	3,465	0	13,331	0				

Source: See Explanatory Notes on Data Collection and Estimation.

Table 27. Movements of Petroleum Products by Pipeline between PAD Districts, August 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	II	III	I	I	III	IV	I	II	IV	V	I	II	III	V	I
Pentanes Plus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	4,703	0	1,014	1,973	1,404	35,634	14,087	0	899	641	0	761	0	0	0
Finished Leaded Motor Gasoline	2,256	0	326	915	737	12,845	7,038	0	460	393	0	480	0	0	0
Finished Unleaded Motor Gasoline	2,447	0	688	1,058	667	22,789	7,049	0	439	248	0	281	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	27	10	136	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	140	0	360	1	225	73	0	100	0	0	0
Kerosene-Type Jet Fuel	103	0	118	21	560	6,257	2,262	0	283	0	0	82	0	0	0
Kerosene	16	0	0	0	0	91	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,708	0	170	528	240	12,096	5,042	0	393	410	0	167	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6,530	0	2,008	6,793	2,286	56,413	30,790	0	1,800	1,897	716	1,110	0	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Commodity	From I to			From II to			From III to					From V to				
	II	III	V	I	III	V	I	New Eng	Cent All	Low All	II	V	I	II	III	
Crude Oil	74	0	0	0	0	0	431	0	431	0	926	0	3,465	0	13,331	
Petroleum Products																
Liquefied Petroleum Gases	2,640	409	0	627	178	119	17,824	597	3,757	13,470	2,762	108	0	0	0	
Unfinished Oils	0	0	0	0	0	0	110	0	0	110	0	0	0	0	0	
Motor Gasoline Blending Components	10	109	0	0	0	119	1,325	0	1,236	89	235	0	0	0	0	
Finished Motor Gasoline	0	0	0	0	0	0	121	0	0	121	83	0	0	0	0	
Finished Motor Gasoline	1,572	0	0	189	0	0	9,347	105	682	8,560	754	0	0	0	0	
Finished Leaded Motor Gasoline	829	0	0	60	0	0	3,112	14	79	3,019	327	0	0	0	0	
Finished Unleaded Motor Gasoline	743	0	0	129	0	0	6,235	91	603	5,541	427	0	0	0	0	
Finished Aviation Gasoline	0	0	0	0	0	0	127	0	39	88	26	0	0	0	0	
Naphtha-Type Jet Fuel	80	81	0	0	0	0	75	14	0	61	0	0	0	0	0	
Kerosene-Type Jet Fuel	147	0	0	0	0	0	2,307	165	508	1,634	353	0	0	0	0	
Kerosene	8	0	0	0	0	0	31	0	0	31	0	0	0	0	0	
Distillate Fuel Oil	745	0	0	67	18	0	2,914	278	405	2,231	298	0	0	0	0	
Residual Fuel Oil	0	0	0	61	38	0	374	0	95	279	0	0	0	0	0	
Naphtha and Other Oils for Petro. Feed. Use	43	0	0	28	0	0	9	35	0	9	10	0	0	0	0	
Special Naphthas	0	0	0	0	0	0	369	0	267	67	194	0	0	0	0	
Lubricants	14	45	0	80	89	0	553	0	434	119	227	108	0	0	0	
Waxes	0	0	0	0	0	0	52	0	52	0	45	0	0	0	0	
Asphalt and Road Oil	0	116	0	192	0	0	51	0	15	36	527	0	0	0	0	
Miscellaneous Products	21	58	0	10	33	0	59	0	24	35	10	0	0	0	0	
Total	2,714	409	0	627	178	119	18,255	597	4,188	13,470	3,688	108	3,465	0	13,331	

Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge between PAD Districts, August 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts into PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts into PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts into PADD III	Receipts into PADD IV	Shipments from PADD IV	Net Receipts into PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts into PADD V
Crude Oil (Tanker and Barge only)	3,896	74	3,822	1,000	0	1,000	13,331	1,357	11,974	0	0	0	0	16,796	-16,796
Petroleum Products	76,872	9,579	67,293	44,619	14,011	30,608	10,096	109,697	-99,601	2,286	3,723	-1,437	3,137	0	3,137
Pentanes Plus	0	0	0	1,519	858	661	978	1,422	-444	0	217	-217	0	0	0
Liquefied Petroleum Gases	2,781	0	2,781	8,516	6,034	2,482	5,869	9,915	-4,046	55	1,272	-1,217	0	0	0
Unfinished Oils	1,325	119	1,206	245	119	126	109	1,560	-1,451	0	0	0	119	0	119
Motor Gasoline Blending Components	121	0	121	83	0	83	0	204	-204	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	46,184	6,275	39,909	21,757	4,580	17,177	1,973	60,721	-58,748	1,404	1,402	2	1,660	0	1,660
Finished Leaded Motor Gasoline	16,343	3,085	13,258	10,843	2,038	8,805	915	23,782	-22,867	737	873	-136	940	0	940
Finished Unleaded Motor Gasoline	29,841	3,190	26,651	10,914	2,542	8,372	1,058	36,939	-35,881	667	529	138	720	0	720
Finished Aviation Gasoline	137	0	137	162	27	135	0	299	-299	27	0	27	0	0	0
Naphtha-Type Jet Fuel	435	161	274	154	140	14	221	661	-440	0	173	-173	325	0	325
Kerosene-Type Jet Fuel	8,682	250	8,432	2,865	699	2,166	21	11,462	-11,441	560	82	478	365	0	365
Kerosene	122	24	98	24	0	24	0	122	-122	0	0	0	0	0	0
Distillate Fuel Oil	15,247	2,453	12,794	8,203	1,023	7,180	546	20,743	-20,197	240	577	-337	560	0	560
Residual Fuel Oil	435	0	435	0	99	-99	38	374	-336	0	0	0	0	0	0
Naphtha and Other Oils for Petro.															
Feedstock Use	37	43	-6	53	28	25	0	19	-19	0	0	0	0	0	0
Special Naphthas	369	0	369	194	0	194	0	563	-563	0	0	0	0	0	0
Lubricants	633	59	574	241	169	72	134	888	-754	0	0	0	108	0	108
Waxes	52	0	52	45	0	45	0	97	-97	0	0	0	0	0	0
Asphalt and Road Oil	243	116	127	527	192	335	116	578	-462	0	0	0	0	0	0
Miscellaneous Products	69	79	-10	31	43	-12	91	69	22	0	0	0	0	0	0
Total All Products	80,768	9,653	71,115	45,619	14,011	31,608	23,427	111,054	-87,827	2,286	3,723	-1,437	3,137	16,796	-13,659

Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Production of Residual Fuel Oil by Sulfur Content, August 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Daks.	Okla., Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total		PAD Dist. IV Rocky Mt.	PAD Dist. V West Coast	
Residual Fuel Oil	3,904	45	3,949	75	1,379	198	280	1,932	755	5,089	2,659	243	9	8,765	200	10,189	25,035
0.00 to 0.30% Sulfur	763	18	781	0	81	4	0	85	91	218	401	98	6	814	64	454	2,198
0.31 to 1.00% Sulfur	2,830	2	2,832	50	311	0	111	472	515	829	1,096	90	0	2,530	50	2,761	8,645
Greater Than 1.00% Sulfur	311	25	336	25	987	194	169	1,375	149	4,052	1,162	55	3	5,421	86	6,974	14,192

Source: See Explanatory Notes on Data Collection and Estimation.

Table 31. Stocks of Residual Fuel Oil by Sulfur Content, August 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States			
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico		Total	Rocky Mts.	West Coast
Residual Fuel Oil — 0.00 to 0.30% Sulfur																	
Refinery	354	22	376	0	32	9	0	41	110	67	276	19	10	482	120	219	1,238
Bulk Terminal	—	—	3,656	—	—	—	—	136	—	—	—	—	—	1	0	0	3,793
Total	—	—	4,032	—	—	—	—	177	—	—	—	—	—	483	120	219	5,031
Residual Fuel Oil — 0.31 to 1.00% Sulfur																	
Refinery	1,350	5	1,355	47	502	0	118	667	88	722	1,483	75	0	2,368	132	1,940	6,462
Bulk Terminal	—	—	5,486	—	—	—	—	378	—	—	—	—	—	1,040	0	430	8,334
Total	—	—	7,841	—	—	—	—	1,045	—	—	—	—	—	3,408	132	2,370	14,796
Residual Fuel Oil — Greater than 1.00% Sulfur																	
Refinery	668	49	717	3	952	265	65	1,285	151	2,797	947	74	8	3,977	280	4,868	11,127
Bulk Terminal	—	—	9,289	—	—	—	—	1,135	—	—	—	—	—	1,342	0	1,815	13,581
Total	—	—	10,006	—	—	—	—	2,420	—	—	—	—	—	5,319	280	6,683	24,708

Source: See Explanatory Notes on Data Collection and Estimation.
— Not ApplicableTable 32. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, by Sulfur Content, August 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	III
Residual Fuel Oil	0	0	0	0	61	38	0	374	0	95	279	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	0	61	38	0	374	0	95	279	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 33. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, August 1984
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	1,752	0	0	1,752
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	1,752	0	0	1,752
Other OPEC				
Ecuador	179	0	354	533
Gabon	0	0	0	0
Indonesia	662	87	7	755
Iran	0	0	0	0
Nigeria	163	0	0	163
Venezuela	(5)	0	1,772	1,773
Subtotal Other OPEC	1,004	87	2,133	3,224
Other				
Angola	0	241	0	241
Australia	0	114	1	115
Bahamas	226	321	0	546
Bolivia	0	0	0	0
Brazil	646	0	0	646
Brunei	0	0	0	0
Canada	48	193	284	524
Congo	0	201	0	201
Egypt	0	0	0	0
France	0	0	0	0
Ghana	131	0	0	131
Liberia	0	0	0	0
Malaysia	0	0	0	0
Mexico	0	0	25	25
Netherlands	0	0	0	0
Netherlands Antilles	1,161	224	3,156	4,541
Norway	0	0	0	0
Oman	0	0	0	0
People's Republic of China	0	0	0	0
Peru	0	0	0	0
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	0	0	0
Syria	0	0	0	0
Trinidad	0	0	0	0
Tunisia	0	0	0	0
United Kingdom	0	0	0	0
Virgin Islands	513	2,034	1,533	4,081
Yugoslavia	0	0	0	0
Zaire	0	0	0	0

See footnotes at end of table.

Table 33. Imports of Residual Fuel Oil by Country of Origin, August 1984
(Thousand Barrels)
(continued)

Country	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
Other				
Other Western Hemisphere	9	0	0	9
Other Eastern Hemisphere	1,283	387	23	1,693
Subtotal Other	4,016	3,716	5,022	12,753
Total Imports	5,772	3,802	7,155	17,729

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

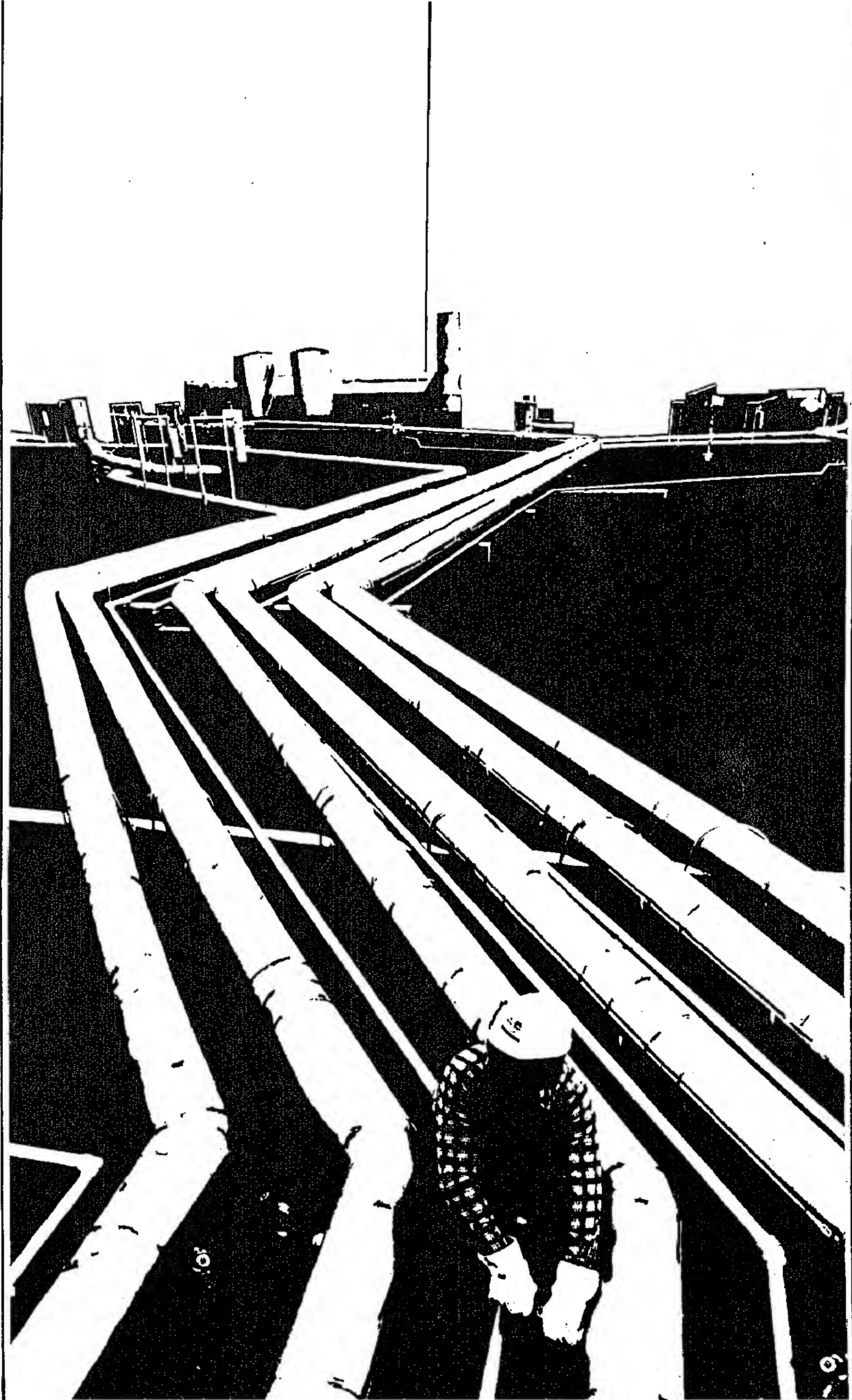
Table 34. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, August 1984
(Thousand Barrels)

State	Residual Fuel Oil			Total
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	
PAD District I	4,217	3,577	6,780	14,574
Connecticut	0	224	0	224
Florida	0	1,019	1,047	2,065
Georgia	0	0	62	62
Maine	0	0	529	529
Maryland	0	0	372	372
Massachusetts	488	0	1,302	1,790
New Hampshire	0	0	60	60
New Jersey	663	513	935	2,112
New York	2,348	1,115	841	4,304
North Carolina	0	0	538	538
Pennsylvania	401	656	351	1,408
South Carolina	0	50	309	359
Vermont	8	0	0	8
Virginia	309	0	434	743
PAD District II	11	0	1	12
Michigan	(s)	0	0	(s)
Minnesota	7	0	1	8
North Dakota	4	0	(s)	5
PAD District III	2,542	0	332	2,874
Louisiana	576	0	312	888
Texas	1,966	0	20	1,986
PAD District IV	1	0	7	8
Montana	1	0	7	8
PAD District V	(s)	225	36	261
California	0	0	5	5
Hawaii	(s)	219	31	250
Washington	0	6	0	6
All PAD Districts	6,772	3,802	7,155	17,729

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.



Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH}-(\text{CH})_n-\text{OH}$. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr } 60\text{F}/60\text{F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See *Operable Capacity*.

Barrels Per Stream Day. See *Operable Capacity*.

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhodium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon, (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C_4H_{10}). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C_4H_8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. In-

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (Including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas oil for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C₂H₆). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C₂H₄), recovered from refinery processes or petrochemical processes.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

Gasohol. See *Motor Gasoline (Finished)*.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity that is not in operation and not under active repairs, but capable of being placed in operation within 30 days; and capacity not in operation but under active repairs that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported

crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See *Butane*.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alkylation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, specialty oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See *Butane*.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed in an atmos-

pheric distillation facility during a twenty-four hour period after making allowances for the following limitations:

The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation.

The types and grades of inputs to be processed.

The types and grades of products expected to be manufactured.

The environmental constraints associated with refinery operations.

The reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs and turnaround.

The reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude and product slate conditions.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, glisonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F. end-point" and "Other oils over 400 degrees F. end point."

Naphtha-Less Than 400 Degrees F. End-Point. A naphtha with an end point of less than 400 degrees F. that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. End-Point. Oils with an end point over 400 degrees F. that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 F. end-point, other oils-over 400 F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D1321)-60 maximum.
Viscosity at 210 degrees F. In Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum.
Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

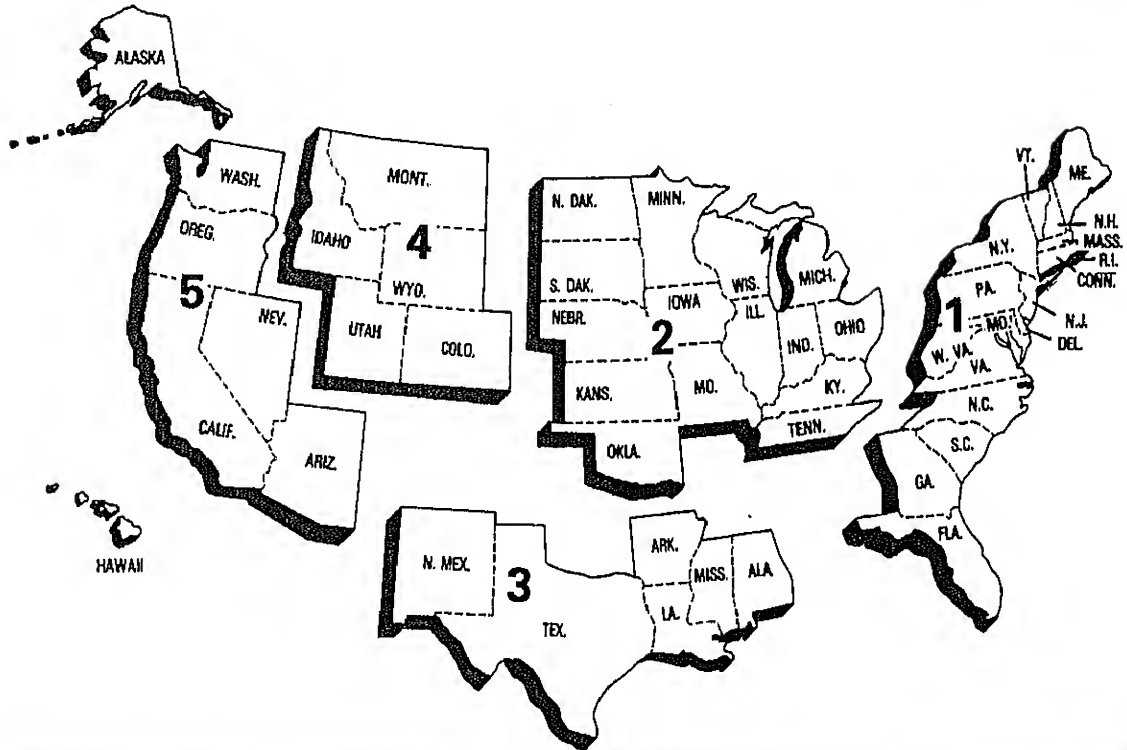
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

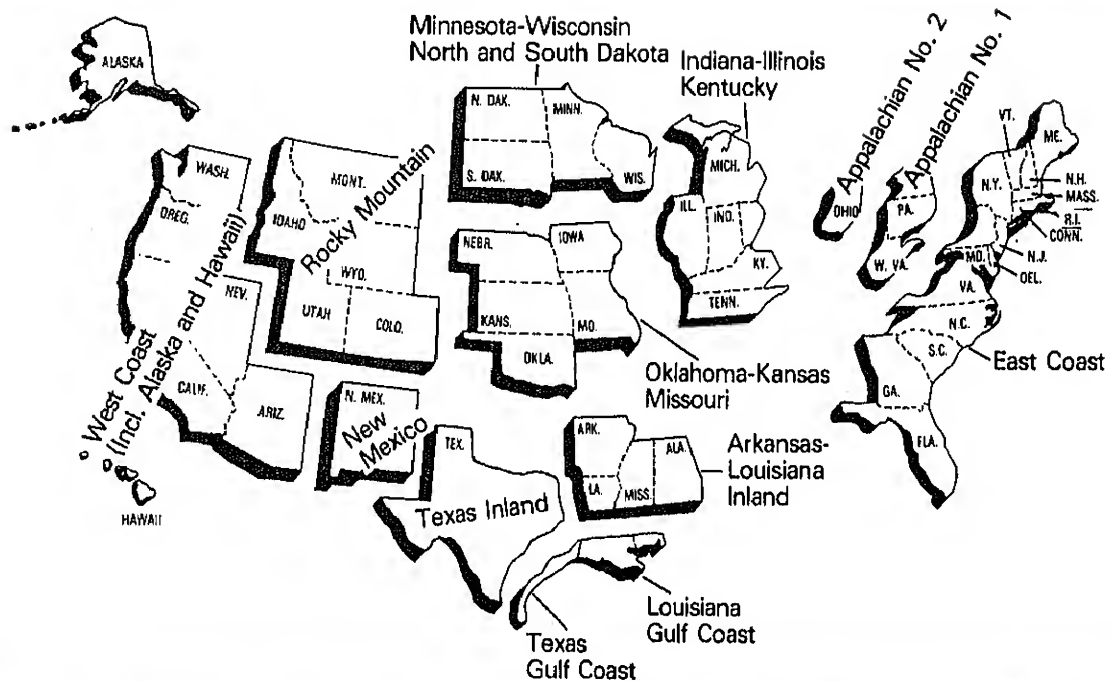
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

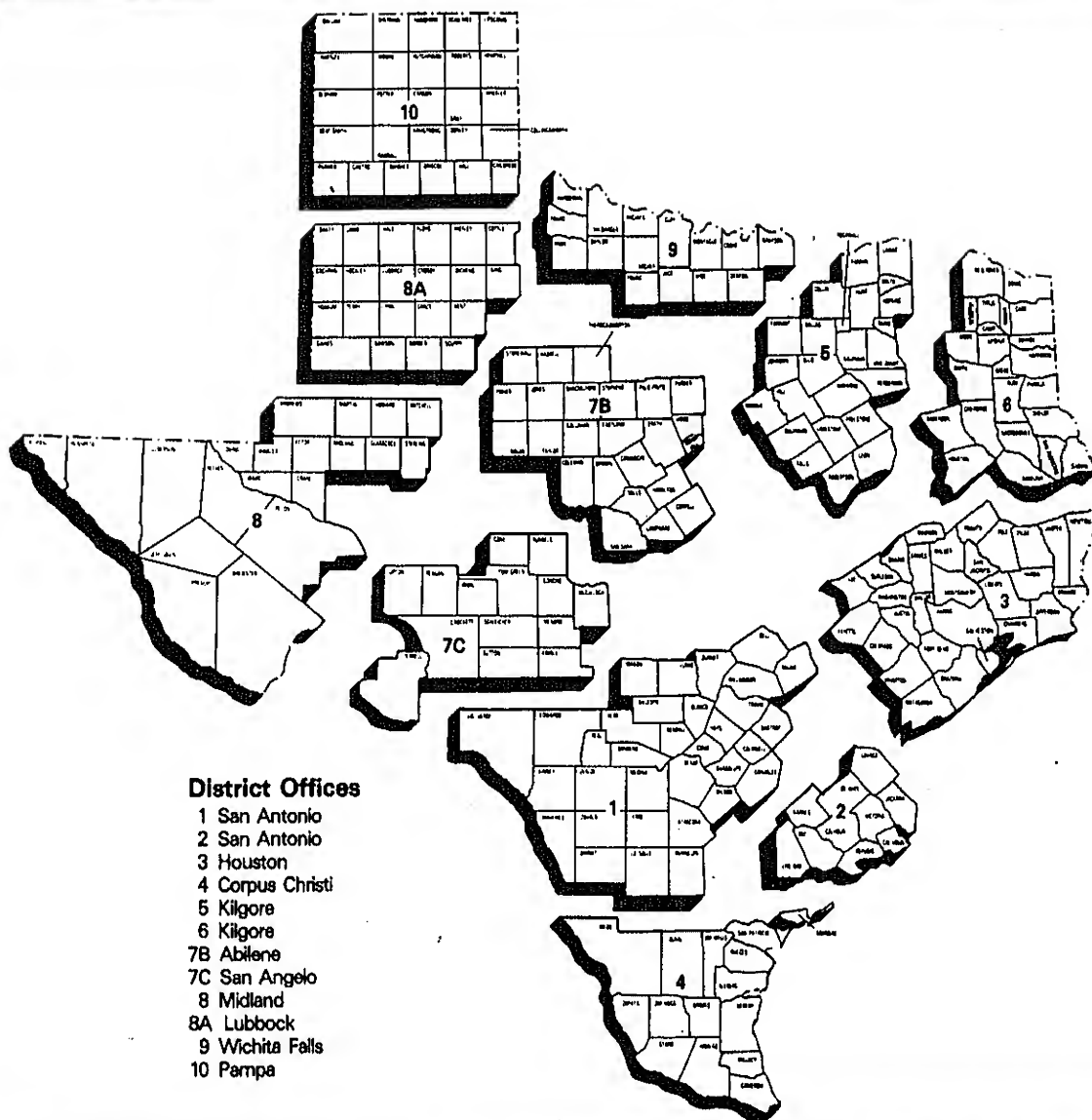
Petroleum Administration for Defense (PAD) Districts



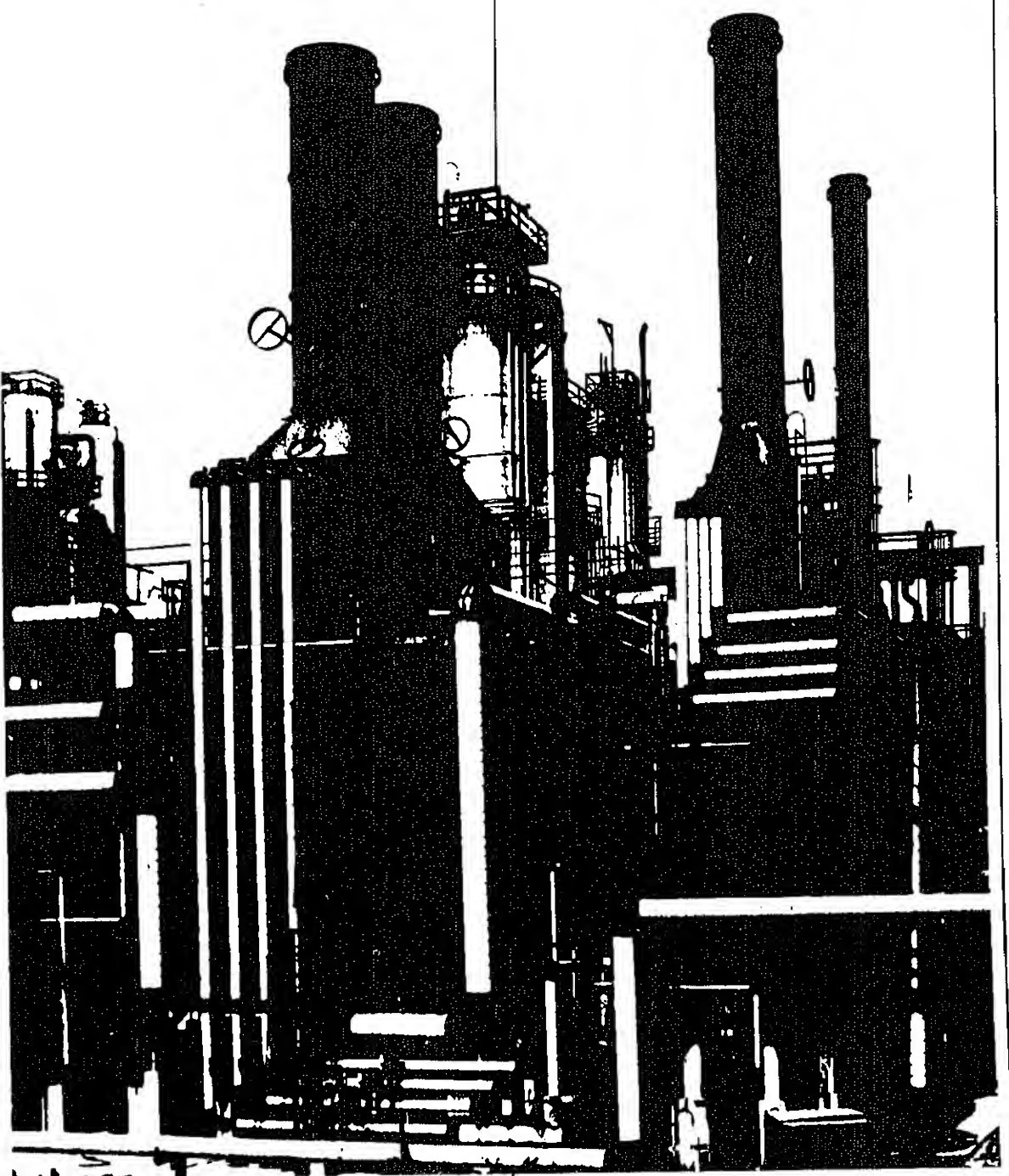
Bureau of Mines Refining Districts



District Map, Oil and Gas Division Railroad Commission of Texas



Explanatory Notes



Explanatory Notes

Note 1: Data Collection Methodology

Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly*

(PSM). A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the EIA-814 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report*.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t) is divided by the amount reported by the sample of companies for the most recent month (M_s). The result is multiplied by the amount reported by the sample of companies for the current week (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and exporters of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the PSM.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and exporters of record importing crude oil and petroleum products into the

United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the PSM.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and non-government imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)
3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and non-government exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Customs officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports Into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum

gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product Supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus re-

finery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated semiannually (in April and October), by basing the *average ranges* on a more recent time period. Each 3-year data series is adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive. The series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels. The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. The seasonal factors for distillate fuel oil, residual fuel oil, and liquefied petroleum gases were derived using monthly data for 1977-1983. For motor gasoline, the seasonal factors are based on monthly data for 1978-1983. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months,

it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unac-

counted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude Losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stocks Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): *SPR Imports* are reported on Survey Form ERA-60.

- Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL *Imports* equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

- Line (16): NGPL *Stock Withdrawal (+) or Addition (-)* is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

- Line (17) equals the sum of lines (14), (15), and (16).

- Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (-)* equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

• Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

• Line (21): *Refinery Processing Gain* Is a balancing item equal to total refinery production minus total refinery input in Table 2.

• Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

• Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (–) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (–) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

• Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

• Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

• Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

• Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (–) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (–) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

• Line (29): *Refined Products Stocks Withdrawal (+) or Addition (–)* equals the sum of stock withdrawal (+) or addition (–) for LPG and finished petroleum products in Table 2.

• Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

• Lines (31) through (35) equal the respective products supplied in Table 2.

• Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

• Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

• The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

• Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

• Crude Oil: 1982 - 645 (Total) and 351 (Other Primary).

• Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

• Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

• Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

• Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

• Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

• Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

• Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Prod-

ucts Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108
- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major

data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.¹

¹Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA ¹	EIA Reported	API Recast	EIA Recast	FHWA ¹
Jan	6,830	7,230	7,084- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,830
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,753	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183- 7,347	7,309	6,579	6,882	6,806- 6,889	6,925

¹FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was sub-

tracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	- 48	2,599	1,627	1,602	- 25	2,584
Oct.	3,251	3,217	- 34	3,085	1,629	1,612	- 17	2,523
Nov.	3,239	3,200	- 39	3,208	1,736	1,716	- 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids sec-

tion, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquid (NGL) supply data, moving from a nine-product slate to a five-component slate that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

EXHIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	Ethane	Propane	Normal butane	Isobutane	Pentanes Plus
Natural Gasoline & Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analyses of the products they

exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

EXHIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

PRODUCT	P.A.D.	Ethane	Propane	EIA Component Slate Normal Butane	Isobutane	Pentanes Plus
Ethane	All	100%				
Propane	All		100%			
Butane	All			100%		
Mixed Streams	I, IV, V II III	30%	40% 25% 80%	60% 15% 20%	15%	15%

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